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Rock Products

DEVOTED TO THE PRODUCTION
AND SALE OF ROCK AND CLAY PRODUCTS.

Vol. III.

LOUISVILLE, KY., JUNE, 1904.

No. 3.

HORNBLENDE SYENITE.

New Material From the Maine Field For Monumental Purposes.

BANGOR, ME., May 15.—A description of the stone industry in Maine would be incomplete were we to omit the new stone which is being exploited. While this rock is not a granite it will enter the same markets as granite does.

Dr. H. F. Hanson, of Bangor, Me., has opened up a quarry of a material which is apparently hornblende syenite, and seems to be a material which is found nowhere else in commercial quantities. At any rate, so far as we have been able to ascertain, such rock has never received any commercial development. The rock differs from other varieties of hornblende syenite apparently, and the name "Hansonite" has been suggested for it in honor of the discoverer, Dr. Hanson.

The quarry is located on property belonging to Dr. Hanson in the town of Hermon, Penobscot County, Maine, about five miles from Bangor and three miles from Hermon on the Maine Central railroad. The stone has been used for several years, in a small way, in the vicinity of Bangor, both for monumental and building purposes. It has been called "black granite," "green granite" and various other names, all of which are misleading, since it is not a granite in the true sense of the word because it contains quartz and mica. The rock is different in appearance from any of the well known building stones. In polished slabs it is of greenish color for the most part. In mineral composition, it consists of black hornblende

crystals about one-half inch in diameter imbedded in a matrix of fine crystalline matter, greenish gray in color. The microscope shows the hornblende crystals to be surrounded by light green actinolite, and the matrix or ground mass to be made up of various feldspars in small crystals, as well as a little other matter. The actinolite probably gives it the gray color. There are many very small particles of calcite and crystals of magnetite and pyrite. The two latter

are for the most part inclusions in the hornblende crystals.

In appearance when polished the rock is handsome, and owing to the marked hornblende crystals, it gives effect different to almost any stone which is worked to-day. A test made at the University of Maine shows that it is a very strong tough stone. It has been suggested, that owing to its odd color and odd make-up, it would make very handsome wainscoting for interior decoration.

It certainly would have a good field where odd architectural effects were to be developed.

Several geological experts have expressed the opinion that this would make a durable and handsome stone for ornamental or monumental purposes.

Dr. Hanson is interested in various other rock and mineral projects and seems to be of an inquiring mind, since he has unearthed a number of unknown deposits of various sorts.

NORTH SULLIVAN, MAINE.

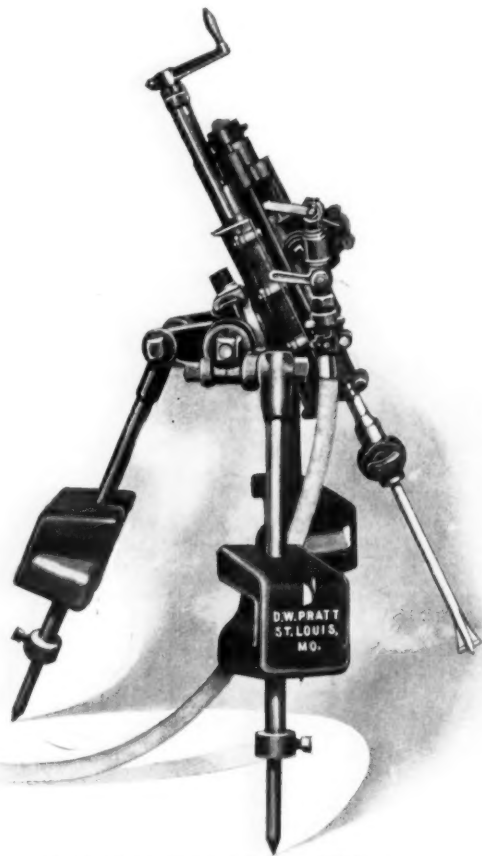
This place seems to be one of the largest centers in the East for the production of granite curbing and paving, and especially is this statement true with reference to curbing. Five or six firms are at work here, quarrying and cutting, and the main product of each firm is curbing.

The stone is a light gray granite, and the natural conditions are favorable to the cheap quarrying of stones of such dimensions as are usually desired for curbing. The stone lies in sheets and has sufficient breaks to make it possible to loosen up blocks with ease. As a rule the stripping is little or nothing, most of the quarries having natural drainage.



Dr. H. F. Hanson's Hornblende Syenite Quarry at Hermon, near Bangor, Me. Dr. Hanson near top of picture.

(Continued on page 16.)



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D. W. Pratt

Machinery Company,

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It has a variable stroke and can be used at a stroke where others fail; this being one of the essential qualifications of a good drill, especially in starting a hole or working through seams. It strikes a very hard blow and its recovery is instantaneous. It has no peer as a mudder.

Our drills are made of the very best material the market affords, by skilled workmen, and with new and improved machinery, and particular care has been taken to make them the best on the market. All parts are interchangeable.

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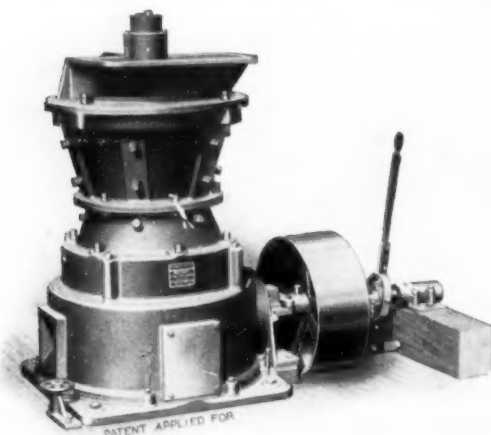
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FULLY COVERED BY PATENTS.

Requiring only a small amount of machinery, it is most simple and economical in working and most perfect as to results obtained, making thoroughly HYDRATED LIME by QUICKEST and CHEAPEST known process. It requires no Bolting Reels, Screens, Mixing Machines or Storage Bins, and can be readily installed in any lime house, adjoining a lime kiln. It is, therefore, not very expensive to install, and is within the reach of all manufacturers of lime.

Two years of critical use by one of the largest firms in the City of New York, have proven the product so thoroughly satisfactory that said firm has arranged to take all the output of two plants using the O'Connell & Feely Process.

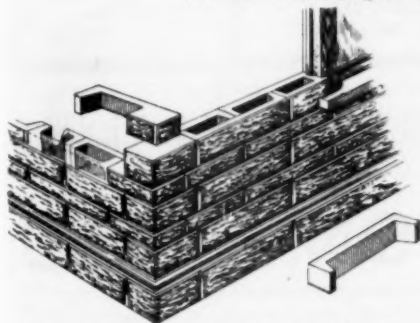
The process can be seen in operation at the plant of the James O'Connell Lime Co., at White Plains, N. Y., 22 miles from the New York City Post Office. Also at the plant of O'Connell & Hillery Company, Tuckahoe, N. Y.

Now is the time for considering the installation of a plant to hydrate your lime and I earnestly solicit your correspondence thereon. A Sample of HYDRATED LIME made by the O'Connell and Feely Process will be gladly mailed to parties wishing same, on receipt of application therefor.

FOR SALE—The PATENT RIGHTS for Canada and England of the O'Connell & Feely Chemical Process for Hydrating Lime. This is a business opportunity without parallel. Address,

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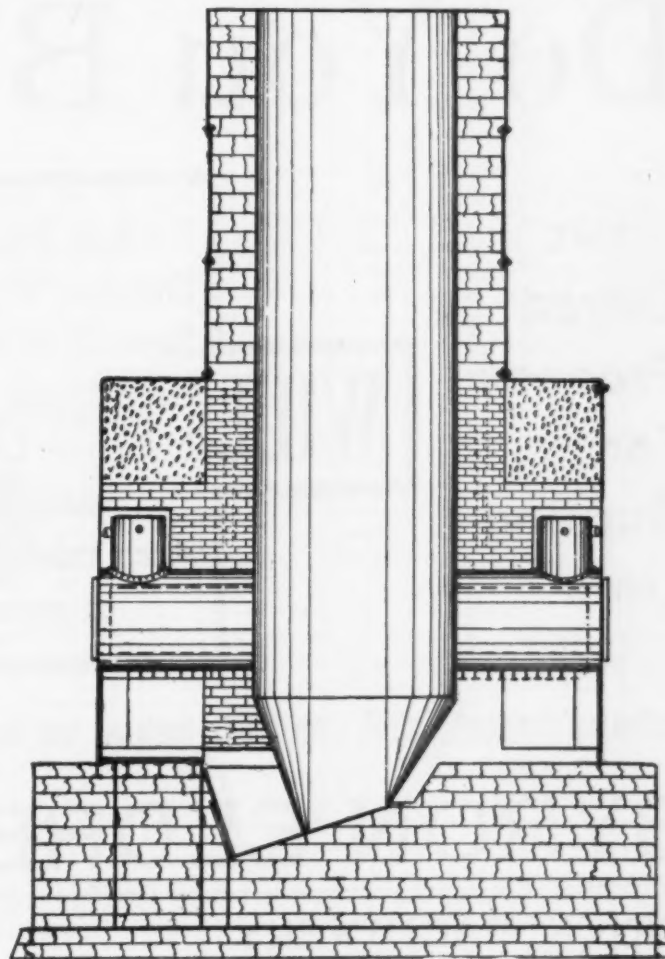
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James O'Connell's Patented Boiler Arch and Continuous LIME KILN.

Built on stone foundation, 6 feet high. Solid brick kettle, capable of fully withstanding weight of falling stone. Only kiln with inside arches, thus confining all heat and avoiding loss from radiation. None of the usual repairs on outside of fire boxes caused by expansion and contraction. No burning out of iron work around fire boxes. If outside shell of kiln is painted twice a year with coal tar there is absolutely no wear-out of the iron. Adapted to burn soft coal, crude oil and wood.



INSIDE VIEW OF BOILER.

Turns out more lime, with same heat, than any other kiln. Draft is always regular and under control, regardless of weather. Same heat that burns lime-rock makes steam to operate conveyor carrying stone to top of kiln, about 50 feet high, and also serves to pump out quarries if situated within reasonable distance, AND ALSO MAKES THE STEAM TO RUN THE BLOWERS WHICH PRODUCE THE COMBUSTION TO BURN THE OIL OR SOFT COAL. Boilers always carry full dry head of steam, and arches do not burn out where boilers are placed in. This patent will save you at least 20 to 30 per cent. on burning lime. Only kiln in market to-day turning out perfect product at reduced cost, doing its own work and running as nearly automatic as possible. This kiln burns either lime or cement rock.

THESE BOILERS CAN BE FITTED IN THE ARCH OF ANY KILNS
ALREADY ERECTED.

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Displace Wood with Bituminous Coal.
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BRICK MACHINERY.



The Best Machinery for the manufacture of the best product. The quality of our machinery insures the quality of your brick and freedom from repairs. Machinery for the manufacture of clay products by all processes. ❦ ❦ ❦

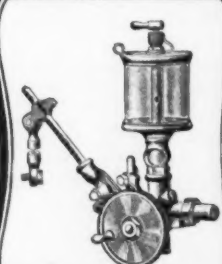
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Entered as second-class matter March 4, 1904, at the Post Office at Louisville, Ky., under the Act of Congress of March 1879.

THE FRANCIS PUBLISHING CO.,
Publishers.

E. H. DEFEBAGH,.....President and Manager.
FRED W. RUGG,.....Secretary.

A monthly trade journal devoted to the interests of the manufacturers and dealers in rock products and kindred lines, including Lime, Cement, Salt, Sand, Slate, Granite, Marble, Sandstone, Grindstones, Artificial Stone, Emery Stone, Quarries, Monuments, Manganese, Asphalt, Phosphates, Plaster, Terra Cotta, Roofing and Roofing Tile, Coal, Oil, Mineral Wool, Brick, etc.

The mission of ROCK PRODUCTS is to serve the trade in any and every honorable way possible, to promote better profits and make life more pleasant for those engaged in the business to which it caters. With this end in view, criticism is courted, and all are invited to use its columns to further ideas and suggestions for the good of the trade. The office, too, is at the service of the constituents of this paper; so when you want to buy or sell, or merely ask a question, write, and when you are in town, call and make it your headquarters.

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THE FRANCIS PUBLISHING COMPANY,

431 W. Main Street, Louisville, Kentucky

BRANCH OFFICE, NEW YORK CITY:

Room 502, 136 Liberty Street,
ALEXANDER CRISTADORO, Manager.

LOUISVILLE, KY., JUNE, 1904.

HYDRATED lime is making progress.

The proposed association of sand lime brick manufacturers should be encouraged.

The steam shovel that will furnish loads for 627 four-yard cars per day is doing something.

Do not forget the desirability of selling lime by the hundred weight, rather than by the bushel.

The latest mechanical appliance is not too expensive when you find out that it will reduce your cost.

A GREAT many of the building trades associations in the larger cities have declared for open shop.

The necessity for knowing the exact cost of producing in all lines of stone work is not only desirable but a necessity.

The proportion of marble used in the monument business is much greater in the extreme East than anywhere else.

The change of building material to the product of the rock from lumber will mean a larger number of customers among the retailers.

A GOOD roof is more necessary than the head gear of the ladies. The July issue of ROCK PRODUCTS will have something special to say on this subject.

The filling of steel cylinder piers with concrete is highly approved by engineers, adding one more straw to the increased use of this valuable material.

EDUCATION is the keynote of the times, and an active participation in all associations in your line is the surest way to get your share of it. If you are not already a member of the association in your particular trade, do not delay, but let us hear from you at once.

THERE seems to be a scarcity of labor in Mississippi.

The brick market in the West seems to be in better condition than any other line of builders' supplies.

THE need for better road and street construction is apparent to all, and it is desirable for those in business particularly, to be well posted on these lines.

THE question box to be opened at the National Lime Meeting at Detroit, Mich., June 14, will help you solve some of the difficulties if you are making lime.

THE tendency in the monument business this spring has been for larger jobs than usual and a great deal of hammered and rock-faced work has gone out.

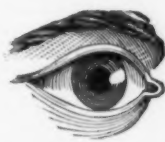
THE price of granite curbing and paving is a little too low at present. A stiffening in prices all around would tend toward a more healthy condition of the industry.

THE adoption of sandstone for the new public buildings, the post-office, at Cleveland, is a distinct victory for the sandstone quarryman. It was a hard fight.

THE latest thing in concrete is the steam box for steaming cooperage material. This will interest the product of rock people for they are interested in cooperage.

WITH the shortage in tonnage, the railroads are liable to do a little better in the classification transportation of materials which are necessary in builders' supplies lines.

Don't Fail to See Moses!



BLOCK 20, ALCOVE 7.
Palace of Mines and Metallurgy.

This illustration is emblematic of the eternal vigilance employed by ROCK PRODUCTS in promoting the interests of the trades we represent. Approaching our exhibit at the Exposition it will look at you, being the first thing you see, but you must look into it if you desire to prove its hidden mysteries.

THE growth of the National Manufacturers' Association is very marked. There were nearly seven hundred delegates in attendance at the Pittsburgh meeting last month.

WE regret to note that owing to the business quiet, the railroads are beginning to cut off improvements, and thus the railroad contractor is feeling the curtailment.

EXHIBITS in the Mines and Metallurgy Building at St. Louis are worthy of the industries. Every reader of ROCK PRODUCTS should be a visitor at the Fair and to the Metallurgy Building especially.

THE tearing down of old buildings and familiar corners to those of us who travel about means much to the building trades and the producers of rock products are getting the largest share of the business.

If you are a cement manufacturer and don't belong to the National Association, you should gather up your bathing clothes and go to Atlantic City to the national meeting on the 15th. There will be something doing.

If all reports are true, there will be quite a good deal of activity in the State of Indiana in the building line. Bridges and culverts and such like will constitute a considerable volume of the business, therefore the stone people should be happy.

THE backward spring has been responsible for reducing the production in cement, but we regret the bins are somewhat full and the slack trade also has its effect. While there was a good deal of purchasing of business, in all there is only about so much volume, bringing out the necessity for more organization work. We trust the manufacturers appreciate this point.

A MEMBER of the stone craft argued recently that education was not necessary, as the opening of a quarry or a sand bank was something any one could do. However, our friend was not consistent, for his success is due to the effect of an intelligent hustle applied to the stone business and his bank account demonstrates that just any old man can not show this success.

THE producers of cut stone in the Central West is, on an average, better equipped with machinery for handling his product cheaply than the average Eastern cut stone manufacturer. There are a number of good-sized quarries in the East which are still doing their drilling by hand. A few have steam drills and a few have in air plants. The extensive use of the "plug drill" in this section would probably mean cheaper production.

THERE is a strong tendency towards open shop in all sections of the country at the present time. It is not only one industry, but almost all industries are looking forward to the time when this condition of things will maintain generally. This does not necessarily mean that they wish to break up the unions or anything of the sort, but the desire and tendency is for a man to employ whom he sees fit, and discharge whomever he sees fit. If the unions lose power, it is almost invariably their own fault and the result of demands which have gone beyond reason.

SOME of our good stone friends, and the architects as well, are a little prone to drive the workman to the wall, as it were, in their specifications. Every man who ever did any handling or quarrying of stone knows that stone does not come out of the ground perfect, and while the quarry owners endeavor to give you just the best kind of stone, yet the claims of some of the stone men are not what they should be. There is a possibility of forcing the quarryman to put in his own stone sheds, if inspection is too rigid, and the waste all thrown back on the quarry.

THERE seems to be a lack of seeing the necessity of adding to the price when it costs more to quarry stone. There are more matters to be considered than just to get the stone out and get a customer at his price. When a quarryman has a particularly fine stone he should push his business like every other up-to-date institution, and not only use the advertising columns of the trade papers but a promotion department should be added. But few operators, even on a large scale, appreciate the benefits coming from an additional stenographer and giving a certain amount of time of the sales agent to this important branch of the business. You can not expect to get a good price for anything unless you make an organized effort.

ST. LOUIS=The World's Fair City.



THE GOOD ROADS CONVENTION.

From Monday, May 16, to Saturday, May 27, inclusive, the National and International Good Roads Convention was held at the Music Hall, St. Louis, with the exception of Thursday the 19th, which was World's Fair day, when the convention met in the State assembly hall of the Missouri Building. The sessions were attended by several foreigners who were authorities upon the question of good roads, and valuable addresses were given by some of them. One of these that was highly appreciated was by Mr. A. W. Campbell, director of public works in Canada. This was not only greeted with

applause but the speaker received a rising vote of thanks. Mr. Campbell's address dealt largely with the technical aspect of the question. He discussed the various materials and their advantages under different conditions. The point which Mr. Campbell insisted upon as the most important, no matter what the material of which the road was constructed, was drainage and again drainage.

Captain Helmer Bernhardt of the royal staff of highways and public works of Sweden, brought with him a commission from King Oscar. He received an enthusiastic welcome.

The second day's proceedings were opened by the Hon. Martin Dodge, head of the department of Public Road Inquiries of the Federal Government, who is really the father of the good roads movement as we have it to-day. He was followed by Gen. Nelson A. Miles. The veteran is an enthusiastic supporter of the Good Roads movement, for in his long military experience he has suffered too much from bad roads. The General brought forward a proposition which seems surprising from a soldier, that is that the army should be employed in building roads. He thought the average man in the army would find this or some similar employment, preferable to that of the life he has to lead now. The plan, in his judgment, "would remove in some degree the hum-drum and every day monotony of life at military posts."

With all deference to General Miles we can not help suspecting that the average man does not enlist for the purpose of doing work, but to get away from the necessity of it. Another objection, it appears to us, would be that road building has, in several States, been done by convict labor, and there are many strong advocates for the employment of our unfortunates exclusively in this work. It would certainly not elevate the morale of the army by compelling men to do work that is considered by so many people to be the most suitable occupation for convicts. We do not wish to be understood from these remarks that we are among the advocates of convict labor for road building. This plan may be good in the main, but there are serious objections to it.

Burned Clay Roads.

While in the way of criticising we wish to enter a protest against a material which appears to be coming into fashion, and which, if used in the form in which it is now produced, will prove disappointing, and the discouraging result will act as a setback to the good roads movement in the districts where the material in question is adopted. This material is burned clay, or to quote the ridiculous name that seems to be favored most, "gumbo," or "burned gumbo."

We have here an instance of a little knowledge being a dangerous thing. It is well known that a vitrified brick forms an excellent paving mate-

rial; it is also common knowledge that a vitrified brick is burned clay, but the fact that is lost sight of is that the worst thing we can use for paving is a salmon, or half-baked brick. Burned clay, owing to the manner in which it is prepared, is no better than the poorest kind of "salmon" brick. Clay could doubtless be burned in a kiln and vitrified, when it would make an excellent material for the surface of a road, but the cost of manufacture would then be entirely different to that of the present method of clay burning.

Economic Side of the Question.

Each day of the convention the economics of the question were treated thoroughly. It would be supposed that after years of missionary work there would be no need to dilate upon the advantages of, and the necessity for good roads, but it was evident that this missionary work must still be continued, for one speaker, a representative man too, urged that road building should be left to the initiative of individual localities and objection was raised to the giving of national aid. The great majority, however, of those attending the convention, was evidently in favor of the Brownlow-Latimer bill, now pending in Congress, which provides for the establishment of a bureau of public highways, and for national aid in the improvement of public roads. The national aid is to be one-half of the expense of improvement or construction.

A Favorite Plan

A plan which met with considerable favor for road construction, and which has the advantage of having been thoroughly tested in other countries, is that of wheel tracks, either of stone, or of vitrified brick. Statistics were published showing the great reduction in tractive force required on the wheel track road. It was stated that if long-term convicts are employed to prepare the material and short-term convicts to build the roads, as is recommended by the United States office of Public Road Inquiries, the cost of constructing brick track ways for our country roads would not be more than \$800.00 or \$1,000.00 per mile, and in many cases could be made to average less than \$600.00 a mile, exclusive of any necessary grading and hauling of material. Furthermore, if well made, they should last for many years.

TRADE LETTER.

ST. LOUIS, June 1.—There is no doubt that a holiday feeling is quite prevalent in this city, and every regular resident is, more or less, affected by it. The business man goes down to his office and has barely got through his mail, or perhaps has only begun to open it, when some valued business friend drops in to see him. More arrangements



LOOKING NORTH FROM WEST CASCADE.

have to be made for entertainments by day and night. There is no complaining at this, not even in secret, for we St. Louisians possess the true combination of Southern and Western hospitality, and it would hurt us badly to know that our friends, who are strangers in the city, were left entirely to their own resources and the great World's Fair, wonderful though it may be. The result is that there is a distinctly holiday feeling among us all, with the exception of those who directly minister to the wants of our many visitors. One consequence of this is that building operations are not at all active. Of course the principal reason for the dullness is that investors are waiting for the lower prices which they are confident will come, at least many of them are confident, but there are some who think that, while there will certainly be some reduction in the prices of material and labor, principally the latter, the drop will not be very considerable.

Prices of Material Reasonable.

It will not be necessary for prices of materials to go much lower to interest intending builders. So far as materials are concerned there is no need to wait, and operations could be begun at once. The general run of Portland cement is cheaper and there has been a reduction in the price of brick. Contractors are now figuring brick work at from \$11.00 to \$12.00 per 1,000 laid in the wall, which is a very reasonable figure.

The building permits issued for St. Louis from the 1st to the 26th of May, amounted to \$831,000.00. The transfers for the month, up to and including the 27th, were 793 in number, with a total value of \$2,847,981.00. During the same period the deeds of trust filed for record were 653, with a total value of \$2,550,124.00.

Quite a number of flats are nearing completion and will be ready for occupancy next month. Many of these are already sold and there will be no difficulty in selling the others for the St. Louisian, as a rule, wants to own the house he lives in.

There can be no reasonable doubt that the World's Fair will bring about a considerable permanent increase to the population of St. Louis and these will have to be provided for. The Columbian Exposition caused a large increase in Chicago's population, if it was only by those who were stranded there and could not get away. It might be supposed that they were not very desirable additions, but most of them were of the right kind, energetic and enterprising, by prospering eventually they were of real advantage to the community in which they were settled by force of circumstances. The increase in population has not yet been provided for here, so that a much larger business is expected this fall and next spring, in all branches of building.

TRADE CONDITIONS.

The Bradbury Marble Co. reports that business the past month has been very good, this was mostly on small jobs. Monumental work has not been quite up to the spring mark, but building work has been greater than usual. Sales for the first five months of this year are 60 per cent. larger than during the corresponding period of last year. The Bradbury Marble Co. recently received a block of limestone from a new concern at St. Genevieve, Mo., the Western Lime Co., of which a Mr. Petrequin is the principal. The limestone was worked into shape and is now on exhibition in the Missouri division at the World's Fair. The block of limestone was found to be remarkably even in quality and smooth in working.

The Syenite Granite Co., with offices at 125 South Fourth Street (the Southern Hotel Building) and quarry at Graniteville, Mo., has had its quarry closed by a strike since April 1, 1903. This is now about to be settled by concessions made to the union upon the points that were insisted upon. I did not learn the full facts of the case, so do not know whether to characterize the concessions as fortunate or unfortunate. The work will be resumed about July 1 and the expectation is that a larger business will be done than before the strike. When the strike took place only rough stock was got out, but on resuming work next month cutting and polishing will be done. The company was formerly in the monumental business but closed this branch about four years ago and confined itself to rough stock. The machines used at that time for monumental work will remain in the sheds and will be used again, along with additional new machines which are about to be ordered.

Hunkins & Willis, Lime and Cement Co.: The general condition of business in the city and sur-

rounding territory is rather dull, although the firm is still very busy but this is mostly on old contracts. The work of the World's Fair is over, or rather the supply of material for the work is finished. The demand for cement, lime, etc., from this source alone has been very great, much larger than was ever anticipated. Among Messrs. Hunkins & Willis' recent visitors were: Mr. Clark, of the Lawrence Cement Co., Philadelphia; Mr. Kinsley, president of the General Fireproofing Co., Youngstown, Ohio. This company manufactures the well known Herringbone Metal Lath. Mr. Alfred Dyckerhoff, youngest son of the famous German manufacturer of Portland cement, has been here for two weeks as the guest of the German Commissioner, Dr. Lewald. Mr. Dyckerhoff has just traveled through China, Japan, etc. He came by way of San Francisco. From here he will go East and, in two months' time, take ship for home. Before leaving he will have visited nearly all the large Portland cement works of this country. Messrs. Hunkins & Willis are the Western representatives of the Dyckerhoff cement works. Another visitor was Mr. McCasland, of the United States Gypsum Co. He was here last week with his family, taking in the Fair. Mr. A. Henley, president of the American Cement Plaster Co., was also here the past week.

Anthony Ittner Brick Co.: The report here is that trade is about the same as last month and that the price of brick is down about 25c per thousand. The market price on common builders ranges from \$7.25 to \$8.00 per thousand. At this office I had the honor of being introduced to Wm. H. Sayward, of Boston, secretary of the National Association of Builders. Mr. Sayward is on his way back from California where he went on business. He states that building operations are generally rather quiet. This condition is chiefly due to the restrictions imposed by labor and there will be activity enough as soon as better counsels prevail.

Charles W. Goetz & Co.: Business is rather dull now and it is hard to tell what it is likely to be. Prices of lime are unchanged, but Portland cement is lower and the probability is that there will not be any improvement in this for the present.

St. Louis Portland Cement Co.: At the office of this company I met Mr. A. Baumberger, traveling salesman for the company, who had just come in from a Northern trip of ten days' duration. He had found business very satisfactory and states that shipping orders are in excess of manufacture so that stocks are running lower. There has not been any decline in the cement in which he is interested since January 1. If any change takes place in the price it will be in the direction of an advance. He mentioned that a cement block plant,

owned by Pasqueth Bros., is started at Mexico, Mo. A cement block plant is also contemplated at Kirksville, Mo.

H. Marquardt Marble and Granite Co.: The same account is given in the monumental business as in that of several branches of the building trades, that business is slow, with the consequence that competition is proportionally active and prices suffer.

Louisville Fire Brick Works.

It gives us pleasure to display in this connection a view of one of the two exhibits of the Louisville Fire Brick Works, which, because of its tasteful arrangement and evident beautiful workmanship is attracting many of the visitors at the Fair, and is giving cause to many inquiries.

Mr. K. B. Grahm, the proprietor of this enterprise, came to Louisville some sixteen years ago to establish his plant, and has been forging to the front ever since. From small beginnings this firm has grown to be one of the foremost in size, and it is claimed, the foremost in the quality of their products in the United States.

The clay used by this firm comes from the famous Carter County fire clay deposit on the C. & O. railroad, from their own mines, and upon its excellence, careful selection and manipulation, is based the remarkable success of this concern.

They manufacture the very highest grades of fire brick for all the varied purposes of the manufacturing industries, such as steel works, blast furnaces, rolling mills, foundries, cement works, lime works, coke ovens, etc.

There is a deposit of sandstone near Linton, N. D., which is being investigated by F. A. Brown and F. D. Tucker, both of Aberdeen, S. D. The quality is given as excellent. It compares favorably with Bedford and Berea stone. The same quality as this Linton Deposit is to be found at different points between the Missouri River and the Rocky Mountains. If the deposit is proved to be up to the standard claimed and of sufficient size to be important, there will be arrangements made without delay for marketing it. The stone is of a dark greenish cast and makes a handsome building, if relieved by some contrasting trimming.

St. Paul has an amended building code in effect, placing more rigorous rules upon the construction and exits of places of public assemblage. The new ordinance is going to be enforced, but a reasonable time will be given managers of such buildings in which to get their buildings in shape.



Our Travelers.

The Way Things Seem to a Newspaper

Man When He is Out Among the Trade.

IN MICHIGAN.

Visits to Many of the Progressive Plant, Located in the Peninsula State.

DETROIT, MICH., May 23.—The cement manufacturers had a very harmonious meeting at Detroit recently, talking over the situation and discussing the best methods of manufacturing, though no combination in price was made.

The Cleveland Silix Stone Co., Detroit, Mich., find business very fair indeed. It did not start in very briskly but is now picking up nicely—they have just finished a big contract for the Michigan Alkali Works at Wyandotte, Mich., calling for 300,000 feet of reinforced floors and roofs, and are now starting on a contract for the county building at Eloise, Mich.

The Egyptian Portland Cement Co., at Fenton, Mich., report business as very good. They are turning out 1,000 barrels per day and shipping as fast as they can make it and are behind with their orders.

The Detroit Graphite Manufacturing Co., of Detroit, Mich., are sending out a neat blotter with an illustration of the Union Trust Building, one of the buildings which went through the Baltimore fire, on the back. It shows where the terra cotta had fallen away, leaving the steel frame work exposed, and which was found to be as bright and glossy and free from rust as the day the superior graphite plant was put on six years before.

The Cement Working Machinery Co., of 7 Jefferson Avenue, Detroit, Mich., are very busy filling orders for their building block machines. They have equipped thirty-seven plants between March 28 and May 15, and are receiving very nice complimentary letters regarding the excellence of their machines. They have just issued a nice little catalogue "R," which will be sent on application, and which fully describes their new machine.

The American Injector Co., of Detroit, Mich., are still busy, though business is not as brisk as it has been. They have a number of high speed injectors in stock they will be glad to ship promptly on orders. They have also a nice little catalogue, containing much useful information to engineers, which they will forward on application. Ask for catalogue "P."

JACKSON.

Amongst our new advertisers will be found the Peninsular Portland Cement Co., of Jackson, Mich., whose works are at Cement City, Mich. This firm is making extensive additions to their plant, which will almost double their capacity and enable them to take care of their fast increasing business, as they will be able to put out over 400,000 barrels of cement per annum when the improvements are completed.

Corey & Miles, 145 W. Pearl Street, Jackson, Mich., have commenced building The Miles Concrete Building Block Machines. These machines make forty different size blocks of 4, 6, 8, 12 and 14-inch width with one machine, and are very easily converted from one size to another. Moulds blocks with face down. Cores are interchangeable. It is simple in construction and operation, while possessing many practical and useful possibilities beyond any other machine yet invented. A pile of their blocks, level at the bottom, will be level at the top if laid without cement, or with cement of equal thickness.

Mr. F. J. Van Allen, assistant treasurer of the Michigan Sewer Pipe Co., at Jackson, Mich., reports business as being very good indeed, with a good stock of orders on hand, and is very well pleased with the outlook. While not many large contracts are being made at the present time, there are a number of cities in Michigan getting things into shape and they will be ready later on.

ADRIAN.

The Adrian Manufacturing Co., of Adrian, Mich., the successors to the Adrian Brick and Tile Machinery Co., are getting ready to do business on a large scale. Their plant has been equipped with new tools, and they are now in position to handle their orders with promptness. Alex Zagelmeyer, of West Bay City, Mich., is president; F. E. Schoonmaker, of Adrian, vice president and general manager, and J. F. Cooper, of Bay City, secretary and treasurer. Mr. Cooper will remove to Adrian shortly. As this plant is the second oldest auger brick machine company in the country, and the new heads are all energetic and experienced business men, they propose to go after trade in a most strenuous manner and will, no doubt, succeed in securing their fair share.

Matthes Bros., Adrian, Mich., report business as being very good, and the season has opened up nicely. They have a number of orders on hand, and expect to keep on getting their share of work.

Kells Foundry and Machine Co., manufacturers of brick machines at Adrian, Mich., have been getting quite a large number of orders for their machines recently, and while the season was very backward in opening they have had more than their share of orders. Amongst other shipments they have made recently was a large one to Kingston, Jamaica, and their machines are in use in every State in the Union except Rhode Island and Vermont. This speaks very well for the excellence of their machines.

TECUMSEH.

H. Brewer & Co., of Tecumseh, Mich., report business as being in very good condition. They have not had quite the trade they enjoyed last year, but that was phenomenal, and as the season has been very backward they may even yet catch up to last year's business if the orders keep coming in as they have recently. Indications point to good business, and amongst the shipments they have made recently were machines to Adams & Wishard, Wellman, Iowa; Carnforth Brick and Tile Co., Carnforth, Iowa; C. R. Sweet, Canton, Ill.; Kanawha Brick Co., Charleston, W. Va.; W. R. Hunt, Saltville, Miss.; W. H. H. Smith & Sons, St. Louis, Mich.; James Leach, Centre Junction, Iowa; New Albany Compress Co., Cotton Plant, Miss.; A. S. Currie, Reddick, Ill.; Brunswick Brick and Tile Co., Brunswick, Mo.; Sperry Bros., Paines, Mich., and W. F. Powell, Mena, Ark.

COLDWATER.

The Wolverine Portland Cement Co., at Coldwater, Mich., report trade starting up nicely. The season being so backward has greatly interfered with operations, but while we have not had very much good weather at this writing the orders for ordinary stuff have been coming in rapidly and a large amount of work will be done from now on. Both the plants, at Quincy, Mich., and here, are running to their full capacity.

GRAND RAPIDS, MICHIGAN.

Amongst our new advertisers will be found E. W. Seaman, who makes a new cement, or lime brick machine (illustration of which is here shown). This machine, which is simplicity itself, will make on an average ten perfect brick per minute, with two unskilled workmen, after the material is mixed. All kinds of fancy and ornamental brick can be made as well as plain, without any additional expense, and it can be changed from plain to ornamental and vice versa, without loss of time. Mr. E. W. Seaman, whose place of business is at 97 Ottawa Street, Grand Rapids, Mich., will gladly furnish full particulars and prices of this machine on application, especially if you say you saw it in Rock Products.

Grand Rapids Plaster Co., of 433 Michigan Trust Building, Grand Rapids, Mich., report business as very good with excellent prospects of improving, now that good weather has at last come to stay. The Sackett Plaster Board, which they make, has met with decided and instantaneous success, all reports of its use being favorable and the results being very satisfactory. The plant only started last October and has been kept running full time ever since. One of the principal qualities of the Sackett Plaster Board is that it is a fire retardant and as it will not warp or buckle, and is light and economical, the success it has met with is not to be wondered at.

American Plaster Co., 200 South Front Street, Grand Rapids, Mich., were badly flooded by the high water recently, and it has taken them ten days to pump out their mine which was flooded,

and as their own pumps were under water they had to employ other pumps. Approximately about ten million gallons of water was pumped out. They are now running full time again and getting their work out. Business is good and they have plenty of orders on hand, with good prospects for a continuation, unless labor troubles should cause an unsettled condition, which, however, they hardly consider likely.

Louis H. Kanitz, Muskegon, Mich., reports business as fairly good. He has a number of contracts on hand—one calling for 1,000,000 brick and 2,000 barrels of cement for the Central Paper Mill addition at Muskegon, which will be finished in July. He has also a contract calling for 150,000 brick for the Lumbermen's National Bank at Muskegon. Mr. Kanitz is also proprietor of the Muskegon Stone, Sidewalk Co. and is enjoying a nice trade in this line.

The Newaygo Portland Cement Co., of Newaygo, Mich., have just opened up an office in suite 1023 Michigan Trust Building, Grand Rapids, Mich., in charge of Mr. George T. Burrige, assistant secretary and sales manager. Mr. Burrige reports business as being in very good shape. The recent floods throughout Michigan washed away a number of dams and bridges and they have an order for 1,500 to 2,000 barrels for one dam and are figuring on about five more bridges all washed away.

CLEVELAND, OHIO.

Cleveland Concrete Building Block Co. report business as having been very good this spring and having done 25 per cent. more work than they did last year. Contractors are getting to like concrete blocks and more are being used all the time. Amongst other contracts they have just completed a two-story store and apartment house 40x90 ft. in Cleveland which was built entirely of concrete.

Cleveland Elevator Bucket Co. report business as somewhat quiet. They are at present figuring on a contract in Montreal, Quebec, and also contemplate establishing an agency there for the sale of their goods.

The W. S. Tyler Co., manufacturers of wire screens for all purposes, of Cleveland, Ohio, have found business exceptionally good this year and have an unusually good run of orders. They make a special screen for use in cement works and it has been meeting with great favor. Amongst other shipments abroad they have sent goods to Korea, South Africa, South America, Australia and New Zealand.

FORT WAYNE, IND.

The Indiana Road Machine Co., of Ft. Wayne, Ind., have found business better this year than last, and last year was the best year they had ever experienced. This is no doubt due to the increased sentiment in favor of stone roads. They have been shipping their crushers to Indiana, Ohio, Kentucky, Tennessee and other States this month.

The Wayne Pressed Brick Co. is a new concern at Ft. Wayne, Ind., manufacturing pressed brick under the calcarsilicon process. Unfortunately for them the recent high water flooded them out and delayed their operations, and just after recovering from that they had an accident to their machinery. However, everything is in good shape now and they are running full blast, making 16,000 to 18,000 pressed brick per day. They made pressed brick in various colors and plain and ornamental.

While they have a number of orders on hand they are in a position to take care of any orders that come along.

Alex Johnson is president and general manager, Samuel M. Foster secretary and Charles McCulloch treasurer.

Clifton & Son, Peru, Ind., have purchased the Matthews Brick Works from the receiver and will at once proceed to get the plant into condition for operations.

The brick plants of Springfield, Ill., and vicinity are running to their full capacity. Springfield brick are used all over the country, but a pressed brick factory and a plant for the manufacture of roofing tile is needed.

The Bolen Brick Co., of Marion, Ind., have filed articles of incorporation with a capital stock of \$20,000.00. The directors are: Robert J. Spencer, Edward F. Bolen and Viola J. Bolen. The company will manufacture brick and tile upon a large scale.

From Our Own Correspondents.

NEW YORK.

New York, May 30.—The building business in New York, though not very large just now in the matter of big office buildings, is very heavy as to house building in the Bronx and in Brooklyn. Brooklyn especially is doing a great deal, owing to the impetus given by the rapid transit improvements, and the anticipation of the early completion of the tunnel and new bridges, and also by reason of the large exodus from the lower east side of Manhattan brought about largely by the increase in rents and also by the condemnation and impending demolition of many houses to make the approach to the new Williamsburgh bridge.

Promise of a Remunerative Year.

Mr. W. K. Hammond, foot of West Fifty-second Street, said: "The situation in common bricks is pretty fair. Big building is off considerably, but there is a great deal of small house building going on, especially up in the Bronx and in Brooklyn, which, added to the other demands, keeps up a daily consumption of two and a half to three millions, which certainly can be called good business. Prices are now running \$6.00 to \$6.50 afloat, which is not bad. There is nothing particularly disturbing in the labor situation just now, and it only needs a revival of confidence amongst investors to make a good year of it; and even without this, and just taking the situation as it is, the plans filed and permits issued are very large and give promise of a remunerative year anyhow."

Discussing the way in which some of the trades enlarged their plants last year almost to their undoing, in consequence of the expected boom, Mr. Hammond said: "The brick trade previously went through that back at the time of the building of the aqueduct along in the 80s. The expected consumption for that job was 150,000,000 in three years, and yet some plants were enlarged and new ones run up with a capacity of 200,000,000. Until such time as they dwindled and perished, they felt that they had to sell bricks, and they did so at any price they could get; and it is a safe statement to say that the trade has not yet fully recovered from that disastrous period, the ruins of which are yet to be seen around Haverstraw and other brick fields in the shape of rotting and tumbled down buildings and grass-grown desolate yards."

Both Man and Car Lost.

Mr. Nesbit, of Pfotenhauer & Nesbit, St. James Building, said they had their hands full with a number of special orders they have on hand. Amongst them is the Trinity Building, 111 Broadway, which will take nearly 500,000 front bricks. They have been having great trouble with delayed and lost cars, and when they put a man on a car to watch it and see it safely into New York, the man and the car both got lost.

Sand-Lime Brick from the South.

The Schwarz System Brick Co. has its offices at 10 Bridge Street, some sand-lime bricks taken at random from a lot that was shipped from the two plants completed by them at Birmingham, Ala., and Charleston, S. C. They were smooth, close and perfectly squared and an absorption test showed a very great advantage in point of density over a very select and smooth shale brick alongside them. The same amount of water poured on each brick was absorbed in $\frac{1}{4}$ of a minute by the shale brick, while on the sand-lime bricks the water remained for four and one-half minutes before being absorbed.

The American Sand-Lime Brick Co., of 39 Cortlandt Street, have closed a contract for the erection of a sand-lime brick plant near Coney Island, with large financial interests in New York City. The

prospects of the sand-lime brick business are very bright indeed, and indications warrant the erection of a number of plants by the American Sand-Lime Brick Co. throughout the eastern district.

General Strike at Haverstraw.

At the present writing a strike has broken out in the Haverstraw yards against a cut of 10 to 15 per cent. from last year's rate of wages. It began in one yard on May 23, and has extended to all of them.

Cement Condition Improving.

Mr. Hiram Snyder, of 229 Broadway, said: "The cement conditions are poor but are improving a little. The last strike of the bricklayers was a shock to every one interested, because they thought the situation was beyond any such chances, and to have everything so quickly tied up again frightened both builders and investors and caused the withdrawal of a great deal of money that was available. But you would be safe in saying that the situation is slowly improving and the year may come out fairly after all."

Mr. Perry, of the Rockland-Rockport Lime Co., reported business for the month fair, with no change in prices.

Mr. Wotherspoon, of the Wotherspoon Plaster Mills, said the plaster business had been very quiet and no marked improvement could be chronicled for the month, except that the price had stiffened a little. Although there was no positive advance, yet it made the situation seem more encouraging.

Lime Plant to Double Capacity.

The Farnham Bros., Cheshire Lime Co., of Cheshire, Mass., which has long been known as one of the finest finishing limes for building throughout the country, has within the past month passed into the hands of Mr. C. J. Curtin, who is president of the company and has a controlling interest therein. Mr. Curtin will make this plant one of the most modern in the country, and while making such improvement will double the capacity of the business to endeavor to supply the market that is constantly calling for this particular lime. The general sales office of the company is at 39 Cortlandt, and all dealers desiring any information concerning this line are requested to apply there. The company has but one price for all New York deliveries, and though it is higher than that of the majority of lime furnished in New York, yet Mr. Curtin says that the consumer will find that he is amply compensated in using this lime even at the advanced price over other brands, by its general superiority.

New Sand-Lime Process Patented.

Mr. T. W. Cappen, 881 East One Hundred and Forty-first Street, who is an analytical chemist, devoting much of his attention to lime products, called at this office and exhibited several briquettes made in six parts of sand and one of lime, by a process recently patented by him whereby he utilizes the poorer and cheaper grades of lime and renders them not only equal to but superior to the richest in point of hardness and toughness. These samples, which were made from a dolomite or magnesian lime, treated cheaply by a wet process, were so hard that the broken edges were absolutely non-friable and the blocks were more like artificial stone than any variety of lime plaster.

One Strike Handled.

The Woodbury Granite Co., in E. Forty-second Street, is very busy in a general way locally, with considerable private construction. Mr. H. L. Brown, the company's New York representative, reports an interesting incident where the men at the Hardwick quarries had a disagreement with the foreman there and struck against him. The company looked up a foreman from Bethel to Hardwick, and sent the first man down from Hardwick to Bethel. As soon as he arrived there the Bethel men struck against him. The company reasoned with them that such a course was unfair, as the foreman was unknown to them and was practically a stranger to them, and they should try him first. But they were obdurate and held to their position; so the company appealed to Secretary Duncan of the National Granite Cutters' Union, who decided that the action of the men below at Bethel in striking against the transferred man because the men above at Hardwick had had a grievance against him, was wrong and they were ordered back to work, and the matter was ended.

Granite Trade Improving.

Mr. K. F. Albertson, of the New York Granite Co., St. James Building, said: "Trade is improving a little; good reports are coming in from all around and we feel much encouraged. The weather undoubtedly has had much to do with it. People have always been accustomed to make their choice of designs from erected work during March and April, and which were then finished up in time for Decoration Day. But the winter has been so hard that people have postponed their inspection till better weather, and hence a rush of orders now, which will not be got out in time for Decoration Day as heretofore, but which will give us a good business well along into the season." Mr. Albertson found all the quarries and works very busy up in Barre, where he had been making a short stay, but nevertheless he saw many operators looking for employment. An interesting feature of the work there was the way in which the men utilized the small plug drills. They went around "heeled" with them and "pulled them" for all sorts of strange uses. When they wanted to make holes for some posts for derrick guy ropes they did not waste any time with picks on the frozen ground. They applied the plug drills and bored a mass of holes till the earth could be shoveled out, or they bored a ring of holes touching one another and the entire cake was easily pried up with crow bar.

Mr. Albertson put in some time fishing in a stream which runs through the Smith quarry land but the water was high and cold and turbid, and the angling was poor. But on the banks of the stream there was a comfortable old farm house, in which there was a well stocked cellar whose contents amply compensated for the lack of luck on the river. He comes back with most pleasant recollections of the farm house, the cellar and the Barre boys, and will never be satisfied till he has got hold of some of them here in New York.

Medina Quarry Company Moves.

The Medina Quarry Co. has removed from 150 Nassau Street to 39 Cortlandt Street, and are now engaged in bringing out the product of their quarries in a more thorough manner than heretofore. The stone is a hard, dense sandstone, impervious alike to moisture and frost, and of very marked fire resisting qualities, being used successfully as a lining for kilns. It comes in grey, white and two shades of pink. It has a special use for floors and stairways owing to its quality of not becoming slippery. The company has issued a beautifully printed pamphlet with many choice half-tones, which it will send upon application.

Visiting the Oolitic People.

At the Bedford Quarries Co. in the Flatiron, they reported trade to be quite good. They have a contract for 80,000 feet of stone for the Trinity Building at 111 Broadway; 50,000 of buff and 30,000 of blue. It runs into well over 300 cars, of which 60 have already been forwarded, and arriving at the rate of ten to fifteen a day. The railroads at first made 9 or 10 days time, but now they are spinning it out to 15.

Mr. A. E. Dickinson, the vice president of the Bedford Quarries Co., was in town about the middle of the month, taking a survey of the situation.

Mr. W. C. Crosier, of the Perry-Matthews-Buskirk Stone Co., Flatiron Building, said business was getting to be very good and they were running quite busy at the quarries.

Mr. C. W. Walters, vice president of the company, was in town recently.

The Slate Industry.

The New York Consolidated Slate Co., 63 Fifth Avenue, New York, whose quarries at Poulney, Vt., are about beginning operations on an extensive scale and getting 16c per foot for large stock, and using a neighboring mill. A more extended mention of the progress of the company's operations appears under the head of "Slate," in another column.

Mr. W. H. Kirkland, 1123 Broadway, said the reports from the mills were that they were busy cleaning up congested orders resultant upon the long delays occasioned by the winter weather, but otherwise the slate trade was not rushing. New orders are not yet coming in, but some good business is anticipated from a number of buildings now under way.

Mr. Arthur Wells, of the St. James Building, reports the slate business to be a little quiet. There is considerable difficulty in getting the goods already ordered, but the quarries are busy and are giving the mills plenty to do, and hustling to catch up with orders.

Regarding the slow and uncertain deliveries of slate, when business is good, which are so harassing to the agents and contractors here, it is threshing over old straw to touch upon the hackneyed subject, but still it is fitting to say that the business would be greatly benefited by a little enterprise at the works. Many a slate order is lost by delay, some substitute being put in at the last minute.

Among Machinery Men.

Mr. H. G. Kotten, 120 Liberty Street, has got out two of the new tools referred to in last month's notes. One is a baby driller for deep boring, drilling from one to two inches diameter, and to a depth of two to three feet at the rate of from one to five inches per minute. It weighs about twenty-five pounds and is easily handled by one man, and does not need a tripod. The other is a baby surfer, illustrated in this month's advertisement. It is detachable in two sections of 75 pounds each for convenience in carrying. It is for all general uses, but especially for monumental work, particularly for small stone which it did not pay to be carried to the surfer and banker-up, while the machine can be easily carried to them. It uses the same hose and pressure as small carving tools. It is steady by a base on which the adjustable arm is pivoted and when an end is completed the base is transferred to the other end. For very small stones the base can be supported on another block or on a box, and thus the very smallest stone can be dressed. It is taking very readily amongst the monumental trade.

The New York Cement-Stone Co. have removed to the Flatiron Building where they have very pleasant and roomy offices on the 17th floor, which command an interesting view south far down Broadway and Fifth Avenue. Mr. Scott reports good business with a constantly increasing interest in the artificial stone trade.

At the office of the N. F. Palmer Cast Stone Press Co., 150 Snediker Avenue, Brooklyn, they were extremely busy. Mr. N. F. Palmer said they were getting in all the orders they could possibly attend to. The business itself as a staple industry was steadily reaching a higher plane and much that was confused and perplexing as to its status was being eliminated; and between the pictures, illustrations and general reading matter pertaining to the subject, people are getting the better of all the mass of confused claims, and were having a clear understanding of the rights of the whole matter.

The Ingersoll-Sergeant Drill Co. is completing a new catalogue of its air compressors which will be published in the course of a few weeks, and which will illustrate a number of important installations as well as standard types of machines. In the line of air compressors the company has designed a specially constructed electrically driven compressor for operating switches and signals in the New York subway system.

Mr. Cory, of the Wood Rock Drill Co., Patterson, N. J., said business had begun to get brisker after the hardest winter both as to weather and trade he had ever experienced. Belated orders are coming in now from the quarries and from the trade generally. The foreign demand is very good. They have just sent drills to France, South Africa, Valparaiso, Chili, and one was just packed for Switzerland.

The Automatic Weighing Machine Co., of Jersey City, N. J., is very much pleased over the fact of having put in a set of machines in a large cement plant which is noted for its willingness to spend money to accomplish any reasonable economy, and which installation has turned out so well, that the company has given them an order for another set.

Mr. D. P. Caritte, manager of the United States Drying Engineering Co., 66 Beaver Street, New York, is preparing to take a couple of months trip through the Middle West, and will devote special attention when amongst the trade which handles products of rock to the company's style "H" dryer, for sand, shales, etc.

The Ruggles-Coles Engineering Co., 39 Cortlandt Street, got the adjoining offices in the 1st of May, and have now an entire suite of communicating rooms, greatly to their comfort and satisfaction.

The F. L. Smidth Co. cement grinding machinery, has moved from 66 Maiden Lane and is now established at 39 Cortlandt Street, on the 12th floor, in a large suite of offices which command a grand view of the lower bay.

The following interesting letter was received at this office from Mr. Elmer E. Stanton, the well known concrete engineer:

GRAND RAPIDS, MICH., May 11, 1904.

MY DEAR SIR: I am in receipt of a current number of ROCK PRODUCTS. It is brim full of live news and matter that will interest every patron of your paper, and taking the scope of its circulation it certainly is the most helpful magazine that comes to my table. The great value of ROCK PRODUCTS is its impartial report of all classes of stone, whether natural or artificial. In other words it is free from hobbles and aims to inform the public of the needs and news of the hour, and in this it fills a very urgent want.

I will say that our concrete stone company at Waverly, N. Y., is busy all the time turning out a first class article of stone of all kinds, hollow-block and solid, window heads and sills, water tables, etc., and the demand is equal to the output. I am now getting ready for operation two more plants to manufacture concrete materials, using my Stanton system concrete, and one will add the sand-lime brick. The demand is increasing all the time for this class of material, but as the material made of sand and cement is not all alike we are forced to meet the "below-the-line-product." But the time has nearly passed when the "sure-thing" without proof can gain a foothold; and this is right.

Again let me congratulate your publication upon the good work it is doing, both for the manufacturer and builder. I am yours truly,

ELMER E. STANTON.

PHILADELPHIA.

PHILADELPHIA, PA., May 27.—While the building situation here has cleared considerably as compared with a month ago, there is nothing to indicate a great rush at any time during the season. The weather has improved somewhat, and there is activity in some lines in consequence.

The labor troubles in the stone cutting trade and in the building trades generally, have been adjusted. The final action of the city council of Baltimore on the ordinance concerning the change in streets there, removing the check to the work of rebuilding, and the voting of a \$16,000,000.00 bond issue for dock improvements at a recent special election are some of the things that tend toward improvement in business. However, there has been no extensive movement of material to Baltimore and none is expected for some time yet. The work of clearing away the fire ruins is far from complete, and there is of course preliminary work to the work of rebuilding. With the late start occasioned by bad weather, delay in insurance adjustments, and the wrangle over proposed changes in streets, the present indications are that a great part of the rebuilding business will go over to next season.

Baltimore has undoubtedly sustained a stunning blow, and the town is not recovering rapidly. It will be some time before the burned district is rebuilt and it is probable that some of it will never be.

Outlook of the Cement Business.

The cement trade here, for instance, is not counting on any great increase in Baltimore. If they do about the usual amount of business they will be satisfied.

The cement trade is still reported flat. Some manufacturers say there has been a slight improvement with some tendency towards better prices. However, dollar cement is not yet in sight, and the manufacturers would be happy if they could see any prospect in the reasonably near future of getting \$1.25 for their product. It is the general opinion that such a price is not to be expected this year. Indeed, the present indications are that the era of high prices has passed, not to return for a long time, if it ever does. It is somewhat remarkable that this state of affairs should exist in an industry that is but little over twenty years old in this country, and that has shown a constant and enormous growth. Overproduction is the cause. While the use of cement has increased, the demand has grown enormously, but there has been more than a corresponding increase in the supply. The old mills have increased their capacity and new mills have been established.

"In all my experience I have never seen the trade in just the condition that it is now," said Mr. Vollmer, of the Atlas Cement Co. "I have been selling goods for a long time, and we have a well established product, but I have never seen trade so dull and prices so low, with so little prospect of improvement. The trouble is, that too much cement has been made. The supply has increased beyond the demand. At present prices the profit is so small that one result may be the winding out of the weaker concerns. The cement field is constantly extending. The product is going more and more into building operations, and of course the industry is established on a firm basis. The tendency of the present prices is to check production, and in time we may hope for a more satisfactory adjustment of trade conditions."

Some of the big manufacturers who can afford to tie up working capital are said to be storing the surplus product, in an effort to check the glut in the market and in the hope that prices will not always be as low as now. Evidently the consumer who can afford to buy for future use, also has some doubts about prices remaining at the bottom, for he is putting in all the stock he can afford to carry. However, there is not enough of this sort of business to stimulate trade.

At the office of the American Cement Co. a cheerful view of the situation is expressed. While there has been no big increase in business recently, this company is filling orders. The volume of business for May will be almost as large as for May last year. However, the prices are nothing like as satisfactory.

Mr. D. L. Stewart, at the Philadelphia office of the Coplay Co., said his company was also fairly busy with orders from its established trade.

Lime Conditions Propitious.

Of all the rock and clay materials that enter into building, the lime trade seems to be the most satisfactory. There is a good demand for this product and the prices are satisfactory. All the big manufacturers with offices in this city are running at nearly their full capacity, to keep up with orders.

Other lines might learn several things to their advantage, by studying the business methods that prevail among the lime makers.

Stone cutters and contractors report business dull. The general cry is that a great deal of work is being figured on, but only a few contracts are being let. The new work is generally small. There is very little big work on hand and but little prospect that there will be any big jobs for some time to come.

There are no big stocks of stone here. The yards seem to have plenty of material for immediate use, but with uncertain conditions in the trade, they are not carrying any surplus on hand.

Wannamaker Department Store.

The biggest thing in the building line for some time to come will be the new Wannamaker department store. This building will be erected in quarter section on the site of the present house, and there will be no interruption of the business. It will be twelve stories high, covering the entire block and will contain 35 acres of floor space. It will be the longest department store in the world, and it is expected to be complete within five years. William Gray & Sons, of Philadelphia, Pa., have secured the contract for the building. A schooner load of machinery has been sent from Philadelphia to High Island, Me., and a new cutting plant will be erected there, which will keep 500 men employed a good part of the year.

Banqueting the Visitors.

A delegation from the Baltimore Builders' Exchange were the guests Saturday, May 21, at the annual shad dinner of the Philadelphia Exchange at Washington Park. The visitors on their arrival in the city were escorted to the Exhibition Department in the Bourse, after which they were entertained at luncheon in the Builders' Exchange.

At 2 o'clock the visitors, accompanied by 125 members of the exchange and invited guests, embarked on the Steamer Twilight for Washington Park, where dinner was served at 3 o'clock. After the dinner informal remarks were made by John H. Short, president of the Baltimore Exchange; J. Lindsay Little, president of the Philadelphia Exchange; James J. Ryan and Thomas F. Armstrong.

The visitors, in addition to President Short, were:

George Bullen, Frank G. Boyd, A. H. Clarke, John N. Herwig, John J. Kelly, Jr., J. T. Lawton, Jas. F. Morgan, Lewis N. Ranke, W. F. Short, S. B. Sexton, Jr., and Stephen Tongue.

Others present were: John Atkinson, John C. Atkinson, J. Turley Allen, W. F. Aerick, Daniel Adams, H. S. Andrus, Arthur Bowen, John J. Byrne, H. Boyd, Walter T. Bradley, Cyrus Borgner, Henry F. Biefgen, A. G. Buvinger, J. W. Birch, F. M. Baker, D. O. Boorse, Joseph E. Brown, Robert Baile, T. J. Budd, P. F. Brendlinger, F. F. Black, William Blackwood, William Conway, William J. Collins, Samuel Clenenger, John Charlton, Powell Clarke, Caston Daws, F. C. Detwiler, Frank S. Elliott, A. M. Eastwick, Charles F. Evanson, C. H. Ehrenzeller, H. M. Fetter, Allen J. Fuller, Ferdinand J. Graves, Walter Gilbert, W. J. Gear, Jr., F. M. Harris, Jr., Fred L. Hand, John R. Huhn, Charles E. Heyer, John Hazzard, E. J. Hedden, Frank F. Healey, Morris M. Hunter, William Harkness, J. T. Hickman, I. W. Kenderdine, T. C. Krewson, C. H. Kimball, Andrew D. Keyser, George M. Lewis, W. F. Lyster, W. F. Magill, H. C. Munus, A. F. McCarty, H. Miller, William Matthews, M. F. McDonough, John O'Donnel, M. O'Neill, B. P. Obdyke, James J. Quigley, Matthew Schmid, Fred W. Seltz, James C. Taylor, James Thompson, Jacob L. Tyson, H. A. Webster, George Watson, William Whitby, Thomas S. Young, R. H. Watson.

GOVERNEUR, N. Y.

D. G. Scholton, proprietor of the Scholton marble finishing shops at Gouverneur, N. Y., has granted the request of his men for a half holiday Saturday afternoons, beginning at 1:15 o'clock. The men will begin work at 6:45 o'clock in the morning and 12:45 o'clock in the afternoon during the half holiday season.

Charles Y. Fuller and son, G. L. Fuller, of Utica, have been at Gouverneur for several days, consulting with owners of marble quarries in an endeavor to lease a quarry. The two men are contractors and assert they have found a great demand for Gouverneur stone and are desirous of gaining control of a quarry. The quarry on the Samuel Graves property three miles from Gouverneur was most thoroughly inspected and negotiations made with Mr. Graves for its lease. A derrick was erected on this property several years ago and the preliminary work of opening the quarry has already been done.

CHICAGO.

CHICAGO ILL., May 27.—The lockout of the stone, cement and lime teamsters, who are the most unskilled and easiest worked of all the teamsters employed, resulted from an arbitrary demand upon two members of the Material Men's Association. The Artesian and Union Lime Companies, which do the most of the teaming of any of the concerns in the city were selected by the unions as the first victims and an attempt was made to bulldoze them. The material men, perceiving the value organization, used union to fight union, and in order to save their threatened members from business failure closed down their institutions and proposed to wait until the teamsters and the two companies come to an understanding before opening. The lockout lasted nearly three weeks. Refusing to arbitrate its impetuous demand for an increase in wages, the lime stone and cement teamsters forced all the building material producers to close their business for self-protection, and the effect was within a short time to stop work all over the city where supplies were wholly used up. This then was the situation here up to a couple of days ago.

Paralyzed Building Industry.

Construction on buildings, sidewalks and all other works were soon tied up, thousands of men were thrown out of work, as the materials furnished by the stone, lime and cement men constitute the basis of all building and sidewalk construction. Scarcely any trade in the building line was left untouched. The stone, lime and cement men, contractors and workers united in complaints against the complication by which some 400 teamsters could paralyze the entire industry.

Now that the lockout is ended the industries immediately affected have resumed their work, and it is said there will be no further trouble.

Large Paving Undertaking.

Chicago is engaged at this time in a good deal of paving work on an extended line of streets, and sidewalks. The Board of Local Improvements has ordered up to this date the expenditure of nearly \$4,000,000.00, and covering more than sixty miles of streets, the material to be used being largely asphalt, though a number of streets are to be paved with granite, top slag macadam. The Chicago Supply Co. is not complaining that it has not enough of this work to do.

More Business than Last Year.

At the present time contracts have been let during the month of April for the erection of 704 substantial buildings in Chicago, costing in the aggregate \$1,287,250.00. This is a gain over the building season of April last year of 71 per cent. Stone and brick men admit that they are doing more business at this time than they were doing the corresponding period of last year, notwithstanding the high prices of materials. Building operations that were brought to a standstill during the strike of stone, lime and cement wagon-drivers have been resumed. The fact that none of the building trades was involved has been regarded by material men as a most encouraging sign. While complaint is heard in many offices regarding the high prices of materials, especially brick and lumber, yet it does not seem that these are seriously deterring factors. The stone, lime and the cement men, while some complain, yet, as a whole talk encouragingly of present prospects.

In the downtown district there is a larger number of new buildings going up of a palatial character than at any time since the great fire of 1871.

Underground Agreement.

It is alleged that a pool consists of the Chicago Masons and Builders' Association, the brick manufacturers, the lime and stone firms, and the Bricklayers' Union. It is asserted that these organizations have bound themselves in a combination so close that all efforts thus far to break it have failed. Its strength is said to be in a complete system of fines, "bonuses," and rules. These are made binding by an "underground agreement," which is iron-clad in its provisions.

Men who seem to be well posted, but who do not wish their names used, assert that the Stone Dealers' Association is one of the closest and most effective of the combinations. The Producers' Supply Co. is the common selling agency of practically all the stone quarries near this city. No matter to what concern the purchaser applies he must deal in the end with this company. They have any information of any kind whatever to give to the press as this writer can vouch for. There are seven stone concerns in this city which are at this date exacting from \$1.65 to \$1.95 a cubic yard for crushed stone that one year ago they were glad to sell at \$1.15 to \$1.25.

Flattering Prospects of Brick Market.

The brick yards in and around Chicago are busy and will be likely to continue so, when the brick makers can realize the prices they are now asking for their products. Of late the tendency of the brick market has been steadily upwards. In March last the price had gone down as low as \$4.00 per 1,000, but it was only for a short time. Last year brick was selling for \$2.50 to \$3.00 less than it is to-day. To-day the regular price in this city is \$7.50 to \$8.00 per 1,000. There is no shortage in the supply.

The Illinois Brick Company is well satisfied with the present scale of prices; so are the other fellows who own yards. They get the same prices as do the large concerns. Nearby towns where brick are made in less or larger quantities are charging from \$5.50 to \$6.00 per 1,000.

At a number of outside points brick is selling at the same prices as given out last year. At towns in Michigan, brick is selling at \$6.30; in Rockport, Ill., is quoted at \$6.00, and some brick have been shipped here to be sold on track upon arrival. One reason why brick cost more here is given that the cost of teaming brick from outside would cost as much as the city yards ask when the teaming charges are added. The present high price of brick is attributed as a natural result, to labor troubles, which affect the manufacturer of brick the same as they do pretty much every one else.

Outside of the downtown district hundreds of buildings were not begun this year, which were contemplated, because of the advance from \$4.00 to \$8.00 per 1,000. It is a fact that a good many small contractors here are idle, men who do the work in sections outside of the downtown district.

The Illinois Co., say that present prices are likely to be maintained, and it is probably they know what is what.

Larger Bricks Than Specified.

Something unusual happened to the La Bahn Brick Company the other day, whose plant is at Lansing, Ill. The company was fined \$480.00 by the Brickmakers' Union for violation of contract. In the yards of the company are stored 1,500,000 brick. The contract rate for loading them is 32 cents a thousand. By the penalty accepted by the company, double this rate will be paid for the work. The brickmakers, a few days ago, struck at the La Bahn plant, charging that the company was making bricks of greater size than specified in the agreement; President La Bahn pleaded guilty.

Improved Cement Sidewalks.

It is now generally conceded among contractors here that the cement walk is superceding limestone and sandstone everywhere. There are a good many new walks being made of it. At the curbstone these walks are protected by the iron facing, into which the cement is molded and as the top layers are of ground granite chips mixed with cement, the cement will not polish, and the wear is more evenly distributed than it could be on any other kind of stone substance. These walks are comparatively new, the most notable example of their use being on the four sides of the new post office building in the heart of the city. The wear upon the stone sidewalks in the downtown streets is something tremendous. In some sections of State Street, with all its crowded and congested traffic, the stones of the sidewalk are worn into well defined paths, one of them close to the line of the basement "bull's eyes" and the other usually inside of the line of the coal holes. Frequently one sees a cover surrounded with such a trough of stone that before the whole slab needs to be beveled with the chisel a gutter must be cut from the trough to the curb to drain it. The new cement granite topped sidewalk has come to stay.

Strike Causes Dealers to Organize.

The strike has led to the formation of the Association of Manufacturers and Dealers in Building Materials. All the large concerns in the city were represented at the meeting held in the offices of the Dolese Shepard Co. Mr. Frank H. Robinson, manager of the Chicago Lime Company, and an active member of the association denies that any conspiracy has been entered into by local dealers to keep other firms from operation or to increase the price of cement, sand, crushed stone and lime.

With one exception all the operators in the building trades in this city have made wage agreements with their respective employers' associations. The wages received by the brick layers, 60 cents per hour; stonemasons, 60 cents; stone cutters, 50 cents; marble cutters, 37½ cents; stone planers, 42½ cents; cement finishers, 50 cents and cement helpers 35 cents.

Canal Boatmen Strike.

The Western Stone Company is having trouble with some forty canal boatmen employed on stone boats coming from Lamont to Chicago, who have been on a strike about two weeks. The men have been paid \$45.00 per month and they are out for \$60.00. The non-delivery of stone here is being seriously felt in building quarters.

What is believed to be the largest call ever made for bids on cement sidewalk construction in Chicago will be made public June 1. The work will involve sixteen miles of street frontage, requiring 499,200 square feet of cement, and will cost one hundred property owners \$75,000.00.

PERSONAL MENTION.

The irrepressible C. L. Ireland and his quiet running mate, Nat. France, were in the city last week buying a crushing plant for their new contract for furnishing ballast on the Erie R. R., to be erected at Huntington, Ind. Their purchases included a No. 8 and a No. 6 Gates Rock Breaker, an Allis-Corliss engine of 200 horse power, two Atlas high pressure boilers of 100 horse power each, with elevators, screen, pulleys, belts, shafting and all paraphernalia that goes to make a complete, large modern crushing plant. Of course, the primary reason, at least for Mr. Ireland's visit to Chicago, was to get something to eat, drink and smoke, the spending of about \$20,000.00 for machinery being merely incidental. They spent four days here and in that time C. L. is said to have gained twenty-seven pounds, at least that is what Marsh, of the Allis-Chalmers Co., tells. Anyhow, they did not look any the worse for wear when they left for the wilds of Ohio and Indiana.

Mr. W. H. Bryan, of the Minnesota Mining and Manufacturing Co., was in the city to-day buying another set of Allis-Chalmers' Rolls for their carbondum plant at Two Harbors, Minn. Their plant is the most complete of its class in the country, consisting of crushers, rolls, screens, elevators, aerial tramway, etc. They are producing twenty different sizes of material from as fine as 200 mesh down to the coarsest emery wheel stock. They have an abundant quantity of this material in their mine and they are equipping the most modern plant in the country for producing a high grade article. They have sales offices in Chicago, and are acquiring a large trade with the manufacturers of emery wheels and other grinding tools. This, by the way, is a comparatively new industry in the stone field and one which bids fair to be a prosperous one.

Mr. Halloran, general superintendent of the Katterjohn Construction Co., was in the city for a couple of days last week getting some supplies from the Allis-Chalmers Company for their ballast plant at Princeton, Ky. Mr. Halloran reports getting out a very large quantity of ballast for the Illinois Central R. R. They have but recently installed a large air compressor, and are equipping their quarry to get out the largest possible yardage per day. They are now averaging about twelve hundred yards.

Mr. H. E. Gillen, of the Gillen Stone Co., Duck Creek, Wis., was in the city Saturday, merely on a pleasure trip. Mr. Gillen says the crushed stone business is very good with him at the present time, the main difficulty being to get cars enough upon which to ship his material. He is furnishing a number of large contractors, which requires pretty nearly the full capacity of his No. 7½ and No. 4 Gates crushers to supply the demand. He states he has to keep hammering away at the Railroad Company all the time to get ample shipping facilities.

MINNEAPOLIS, MINN.

MINNEAPOLIS, MINN., May 28.—General building operations in St. Paul and Minneapolis are hardly quite as extensive at this time as the earlier indications of the spring pointed. In the number of building permits issued, the past month will show a greater total than for the month of May for fifteen years past. The aggregate for Minneapolis is about \$1,000,000.00 and St. Paul will run somewhat less. Several of the large buildings in contemplation are not ready yet. One or two running to about \$500,000.00 have been put off and will probably go over for another year. Prices on building materials generally are at about the same figures as they were a year ago. One notable exception to this is Portland cement, which a year ago was scarce and wanted at \$2.50 per barrel, while now it is plentiful at \$1.80 per barrel.

The Cream of Wheat Co. building in Minneapolis, by Harry W. Jones, architect, is now up to the fifth floor. It is a fireproof building and is the handsomest structure which has been started in the city this year. In St. Paul, the Crane & Ordway Co. have started work for a fireproof structure which will contain some features novel to this section. Reed & Stem, the architects, have utilized some new systems now in use in New York City, using a steel construction throughout. There will not be a piece of wood used in the entire building. Even the window sashes will be metal. There will be steel doors, sheet iron floors, brick walls, steel frame work. The building complete will cost about \$175,000.00.

The St. Paul Roofing, Cornice and Ornament Co. report business fairly good in their line. The use of pressed steel ceilings for stores and offices is increasing steadily. Particularly for country stores, hotel offices and dining rooms, it has been used extensively through the Northwest. Tile roofing is also growing in favor and is quite largely used in place of the slate of former years. The old-time tin roofs are seldom used in the cities now. It is either cedar shingles, slate, tile or composition roofing for slopes, while flat roofs are generally of pitch and gravel.

The Barrett Manufacturing Co. are busy at their factory on Nineteenth Avenue South, in Minneapolis, turning out tar papers for building and roofing work, although they report orders now as hardly quite as rushing as it was this time last year.

The W. S. Nott Co., of Minneapolis, general distributors of Carey's magnesla cement roofing, report these goods growing in popularity every day. The Minnesota Agricultural Association are using a large amount of these goods for the new buildings at the State Fair grounds. In some places taking the place of tar and gravel roofs. The Twin City Rapid Transit Co. have used these goods on a number of their buildings.

A new stone crusher is being installed for the New Ulm Stone Co., at New Ulm, Minn.

Concrete.

Anton Evenstad and George B. Finley will manufacture concrete building blocks at Lakota, N. D.

The Manhattan Paving Co., of Faribault, Minn., which has a flourishing business in laying sidewalk tiles, will expand to engage in the manufacture of hollow concrete building blocks and sidewalk tiles.

J. J. Baskerville, of Cando, N. D., has contracted to manufacture hollow building blocks for that county, under the Miracle patents.

The Enterprise Brick Co., of Duluth, Minn., has amended its articles of incorporation to allow the manufacture of tile as well as brick.

Strike Arbitrated.

Madison, Wis., contractors have had a strike on their hands, the laborers in masonry and bricklaying demanding an eight-hour day at the same wages, \$3.50 and \$4.00, which they have received for nine hours. The contractors stood firm against the demands, and proposed to turn to non-union labor exclusively. The men held out as long as possible, but finally found that public opinion and all was against them. They finally agreed to leave it to a single arbitrator—a wealthy lawyer of that city, and there was no doubt what his verdict would be.

The Missabe Quarry and Contracting Co. is a new incorporation at Hibbing, Minn., on the Missabe Iron Range. James Geary, William Wearne and Robert F. Berdie are the incorporators, and the capital stock is \$25,000.00.

Hugh and Elmer T. Longstaff and Charles C. Gates, of Minneapolis, have formed the Minnesota Construction Co., of Minneapolis, to engage in railroad contracting. Their capital stock is \$50,000.00.

Suit was brought at Minto, N. D., by N. Davis, a lawyer, against D. A. Dinnie, a contractor, and others, to recover damages for injuries sustained by the collapse of the post-office building. The defendants were engaged in tearing down the adjoining building, and while doing so, had piled brick on the structure which collapsed. The lower court returned a verdict in favor of the contractor, and now an appeal has been taken to the supreme court.

Prominent Contractor Dies.

E. L. Dubois, a prominent contractor of Des Moines, Iowa, died recently. He was well known in the Twin Cities, where he put in thirty miles of vitrified conduits for the Twin City Rapid Transit Co. electric cable lines. He had been a French officer in the army during the Franco-Prussian war. He had done work in all parts of the world, as a contractor. In Brazil he was decorated by the Government in recognition of his achievements. He located in Des Moines about nine years since, and has made that city his headquarters ever since. He was prominent in fraternal and business circles.

Hugh McKinstry, of Humboldt, Iowa, has engaged in the manufacture of artificial building stone.

Seattle, Wash., is doing a wonderful amount of building. It is estimated that the season's work will require a total of 200,000 barrels of cement.

A new Portland cement factory is planned to be established at Lime Lake, near Amherst, Wis., where there is an immense deposit of marl. The Wisconsin Marl Co., of Plainfield, Wis., has bought these bids and is now making arrangements to start a Portland cement factory. The tract has fully fifty-five acres of marl deposit.

Tweedle & Hamilton, at Fruitland, Canada, have recently bought the brick making plant of Eddie James, and they contemplate extensive improvements.

The Aberdeen Brick Co., Beresford, S. D., has changed hands recently. The plant will be enlarged and improved with new machinery as nearly as practicable.

CHATTANOOGA.

CHATTANOOGA, TENN., May 24.—The trade in rock products, slate, lime, cement and granite are all quite good at this season, owing, not only to the spring building trade going on in the centers of this State, such as Memphis, Nashville, Chattanooga and other points, but also to governmental construction, engineering projects of great moment and roadway work on a large scale. The contractors are all busy these days and are calling for supplies. The best known firms generally are well up in orders, and are running overtime in many instances to meet the demand.

Gustave Bottinger, a Knoxville contractor has secured the contract for the cement work on the Big Four Railroad in the vicinity of Indianapolis and Terre Haute. Some very large arches are to be built of cement. Mr. Bottinger will get at the work at once. The contract will amount to \$900,000.00.

The Knoxville marble men did not like the fact that the contract for the Louisville & Nashville R. R. work here was worded so as to admit the use of Bedford stone by the contractor instead of Tennessee marble. It is seldom now that any other than the Tennessee marble gets into enterprises in Knoxville's territory. That is why the marble men were sore when the railroad contract in their territory did not specify their product.

Montague & Co., of Chattanooga, have been awarded the contract for furnishing a large amount of sewer pipe for the sewer system of Birmingham. Their bid was \$15,240.00, and they will furnish sewer pipe for five sections of the Valley Creek sanitary sewer. Black and Laird, a contracting firm, of Dallas, Texas, was awarded the contract for building the last five sections, their bid being \$110,186.00. Montague has already begun the shipment of sewer pipes for the system.

Over at Knoxville in the Lonsdale suburb, a new brick manufactory has been put in operation, being that of the McCrosky Mining and Manufacturing Co., built at a cost of about \$50,000.00. The firm employs at the start about 25 men. The raw material will be brought from around Oliver Springs, Tenn., where the white clay dug from under the coal beds will be the only materials used in this plant. When the bricks are burned and ready for the market they will present a natural buff color and will be used extensively in the construction of fine houses. It is predicted that the plant will make large shipments to neighboring cities as heretofore these have ordered buff brick from Ohio.

The Tennessee Marble Co. has opened up new quarters at Concord, Tenn.

The Chattanooga Street Fair now going on here has many handsome exhibits, but none better arranged than those of the Chicamauga Cement Co., consisting of samples of Portland and Dixie cement made by this concern at its plant near Mission Ridge, Ga., together with specimens of its building stones and the exhibit of Montague & Co., manufacturers of sewer pipe, farm drain tile, fire clay sewer pipes in all conceivable styles and sizes. The company has two plants in Chattanooga, one of which is located west of Cameron Hill and the other near Blowing Springs.

At Cornersville, Tenn., a new ten thousand dollar phosphate company has been organized, to be known as the Cornersville Phosphate and Mining Co. The following officers have elected: Dr. A. Jones, president; W. H. Moore, vice president; Dr. F. H. Gault, secretary and J. B. Edwards, treasurer. A charter will be applied for at once. The company thinks there is plenty of phosphate here and of a real good grade.

Articles of incorporation have been filed at Birmingham, Ala., by the Ashby Brick Co., with capital stock of \$30,000.00. G. B. Crowe, J. G. Oakley and E. P. Gaines are the stockholders.

A reorganization of the Shenandoah Brick and Tile Works at Shenandoah, Va., has been completed. The following officers were elected: O. T. Rankin, president; F. B. Rankin, vice president; U. G. Reininger, secretary, and E. A. Reid, treasurer. They will at once get the plant ready for operation.

There has been a discovery within five miles of Stanford, Ky., of a fine quality of black marble in immense quantities. Several pieces of it have been dressed and it shows up beautifully. A stock company of local capitalists has been organized for the purpose of developing the product.

SYRACUSE.

SYRACUSE, N. Y., May 25.—The Empire Portland Cement Company having a plant at Warner, eleven miles west of here, has elected the following directors: Charles Miller, Thomas Brown, J. E. French, Charles A. Lockard, Albert F. Miller, Samuel E. Megeath, William C. Miller, John D. Archbold and E. J. Page. The company recently resumed operations in its factory after an idleness of several months, but was soon compelled to shut down again because of a shortage of coal. On May 13, the company filed an amended claim against the State for an additional sum of \$35,600.00, making the total claim for damages to its marl beds occasioned by their being flooded, \$63,448.00. It is claimed that its deposits in the town of Camillus were flooded as a result of negligence on the part of the State, in constructing a dam across Bitter Brook and during the canal improvement in 1901.

Members of the Stone Cutters' Union here have been endeavoring, but without success, to retain counsel for the purpose of bringing injunction proceedings against Wells Brothers, of New York City, who have the contract for building the new \$1,000,000.00 Onondaga County courthouse here. The grievance of the union men is that the stone for the new building is not being cut here as provided in the specifications.

Broken stone for repairing unpaved streets for which \$5,000.00 was appropriated in the city budget for 1904 will soon be ready for use. The first order has been placed with the Solvay Process Company, the stone to be used in Emerson Avenue and Harbor Street. It is said that the demand of aldermen for broken stone will exceed the amount that can be secured with the appropriation.

John Q. Veeder, an employee of the Onondaga Pottery Company celebrated his seventy-sixth birthday April 25, by playing his tools at a potter at the pottery works. Uriah B. Veeder, his father, was a soldier in the war of 1812. Before taking up the trade of a potter, Mr. Veeder was in the salt business. For the past thirty years he has been with the pottery company.

The troubles of the Adamant Plaster Company came up again in the United States Court on May 3, when Judge John R. Hazel, of Buffalo, made Charles D. Blanchard permanent receiver. The liabilities amount to \$90,000.00, the principal creditor being the American Exchange National Bank, of this city, now in the hands of Receiver John W. Schofield, and which has a claim of \$61,000.00.

DeLany & Soule, dealers in monuments and tombstones, in South Warren Street, have been awarded the contract for the building of the foundation and pedestal of the Hamilton S. White Memorial Monument, to be erected in Fayette Park, in honor of the memory of the late Honorary Chief of the Syracuse Fire Department, Hamilton S. White. Miss Gail Sherman, the sculptor, has just let the contract.

A surprising showing resulted from a blast at the pyrites mine near Gouverneur last week. Four twelve foot holes had been charged and were exploded at nearly the same time, uncovering in the neighborhood of 300 tons of ore. From one of these holes, and thrown fully thirty feet, was a solid chunk of the richest, purest pyrites that the mine has yet developed. Mr. Cole, owner of the farm on which the plant is located, and others who examined the piece estimated its weight at about six tons, but experts who have a thorough knowledge of marble claim it will weigh at least fifteen tons. It is simply a solid mass of perfect pyrites without a particle of foreign substance and is said to be the largest and heaviest and purest chunk of the product yet discovered.

Millions of tons of terra cotta clay have been found on the Peabody estate near Tarrytown, N. Y., and the Peabody Enamel Brick, Tile and Fireproofing Co., of New York, will build one of the largest and most modern plants at this site the coming summer.

The Myenberg Terra Cotta and Brick Co. has been capitalized at Washington, D. C., with a capital stock of \$7,500,000.00. F. P. Myenberg, F. T. Mogan and J. P. Swarthout are the incorporators.

The Brick Department of the Corning Terra Cotta Brick Works at Schenectady, N. Y., has been closed because the employees made some rules which the management refused to accept. The works will remain closed until the workmen permit the company to conduct its business by its own regulations.

OKLAHOMA.

Brief Sketch of Her Great Resources Inviting Development.

This is really a land of opportunities. Her rapid and steady growth, together with the widening importance of her industries give promise of coming eminence and empery.

Oklahoma Salt.

It is not generally known that some of the largest deposits of salt in the United States, if not in the world, are found in Oklahoma. In at least five of the western counties of the territory there occur extensive deposits of this product in the form of strong brine springs. The water from these springs gives rise to salt plains varying in size from a few acres to a number of square miles. The salt is practically a saturated solution.

For a number of years primitive salt plants have been in operation on practically all of these plains, and local demands have been met. Stock salt for a good part of Oklahoma, Western Kansas and the Panhandle of Texas has come from these plains. A few futile attempts have been made to introduce modern methods of manufacture, but usually without success. At the present time, however, a company is erecting a plant with a daily capacity of approximately 500 tons per day at Ferguson, Blaine County. The water is obtained from drilled and opened wells on the salt plain and piped two miles to the railroad where the plant is located.

It is estimated that in all the flow from the various salt springs in Oklahoma is enough to supply a dozen States, and as the salt lands are not usually considered particularly valuable, they can in most instances be obtained at small cost.

Building Stone.

Oklahoma building stone will be well shown at the St. Louis Fair. Professor Gould, of the University of Oklahoma, at Norman, has had in charge the matter of collecting this material, and a representative exhibit consisting of more than 150 specimens has been obtained. These samples consist of granite, limestone, sandstone and dolomite from various parts of the territory. It will be shown that the sandstone is the most widely distributed of any other building stone of Oklahoma, and that in color it varies from white and various shades of light brown to red and black.

Limestone is found in two widely separated regions of the territory. One in the northeastern part along the Arkansas river, and in the Osage Nation, and the other in the vicinity of the Wichita Mountains in the southwestern part. In the latter region some of the limestone is so hard as to be an excellent marble.

The granite of the territory is found exclusively in the Wichita Mountains, a chain of granite peaks sixty miles long and more than 1000 feet high, averaging ten miles wide, containing an inexhaustible amount of this stone. In color it varies from a gray granite, very like the Quincy product, through pink and light brown to a deep red, besides black and bluish varieties. At the present time this rock is being worked only at Granite, in Greer County, although deposits just as good are found in many other places.

Manufacture of Pressed Brick.

There are a dozen or more pressed brick plants at work in Oklahoma, all of which are running to their fullest capacity. The material used is the fine grained red clay which is abundant in all parts of the territory. This clay usually makes a desirable quality of pressed brick.

Terra Cotta Clay.

A clay has recently been discovered among the Arbuckle Mountains in the Chickasaw Nation, which is believed will make a good quality of terra cotta. It is a yellow to green stiff unctuous clay, and is found in considerable quantities in certain restricted localities. In view of the fact that there are no terra cotta works in this part of the United States, it would seem that a deposit of this character should be investigated.

Artificial Stone Plants.

There is a good opportunity in Oklahoma for the manufacture of sand-brick or artificial stone. A good part of the territory has little natural building stone, and the greater part of the buildings which are being erected are constructed of red brick. The Oklahoma Artificial Stone Co., with headquarters at Oklahoma City, has a dozen or more plants in various parts of the territory, all

of them are doing a thriving business, but they are not able to meet the demand.

One difficulty is that most of the sand in Oklahoma consists of round grains. In the eastern part of the territory, however, and particularly in the Wichita Mountains in the southwestern part, there is sharp sand. In the latter region it is derived from the disintegration of the granite which makes up the peaks of the Wichita Mountains.

Gypsum to Supply the World.

The amount of gypsum in Oklahoma is past comprehension. Prof. Gould, of the University of Oklahoma, at Norman, has just made an estimate that if 100 mills each working up 100 tons a day were set to work and that the entire 10,000 tons were manufactured every day in the year it would take 34,000 years to use up all the available product.

If all the gypsum in sight in Oklahoma were made into plaster and loaded in cars, 30,000 pounds to the car, the train would stretch around the world 2,500 times at the equator.

At the present time there are five mills in Oklahoma. The product finds a ready market, and is coming more and more into use.

Bedford Limestone.

A ledge of limestone has recently been discovered in the Indian Territory, according to Prof. Chas. N. Gould, of the university of Oklahoma, at Norman, which is destined to rival Bedford limestone. It is a hard oolite with grains of regular size, varying in color from white through gray and cream to buff, and is exposed in a ledge more than 20 feet thick. As far as known it is found only in a small area of a few hundred acres. As Bedford limestone now costs about \$1.00 a cubic foot in Oklahoma and this stone can be placed on the market for a little more than one-half that amount, it seems to be a question of only a short time until a quarry is in operation.

SAND.

Both the Erie Sand Co. and the Dunkirk Sand Co., are buying machinery to increase their sand business at Dunkirk, N. Y.

The Muscatine Sand Co., Muscatine, Iowa, has commenced the construction of two immense sand barges to be used for towing about the Muscatine harbor.

The Culpepper Sand and Brick Co., of Pine Bluff, Ark., has been chartered with a capital stock of \$5,000.00. J. B. Culpepper is president, Madison Downs, vice president and J. W. Dutton, secretary-treasurer.

At a meeting held at Gallitzin recently a company was formed to be known as Cambria Sand Co., of Gallitzin, Pa. The company will make a specialty of making and shipping white engine sand, yellow building and jig sand.

A vein of silver-like glistening sand has been discovered in that part of the earth in South Scranton, Pa., known as "The Orchard." Henry Schuener recently purchased the property and made the discovery accidentally while digging post-holes.

The Eddyville Sand Co., Eddyville, Iowa, are building a large sand barge which will be equipped with a centrifugal pump, and it is expected that concrete gravel can be secured in unlimited quantities. They are also putting in a side track to facilitate the shipping end of their business.

The Silver Creek Sand Co., Silver Creek, N. Y., has been incorporated with a capital stock of \$30,000.00 for the purpose of the excavating, marketing and shipping of sand into the Buffalo, N. Y., market. The directors are: Ralph J. Quale, John W. Peglo and George H. Shofner, all of Silver Creek.

W. T. Leggett, secretary of the Dunbar Sand Manufacturing Co., with general offices at 2023 Farmers' Bank Building, Pittsburg, Pa., says they are turning out over 100 tons of white rock sand each day. The glass manufacturers get most of their output, the building trade using the balance.

Mr. George Potts, of Asbury Park, N. J., has about perfected the organization of the Chesapeake Bay Gravel and Sand Co., which is to develop Tangier Island in the Chesapeake Bay or the Potomac River. The island contains 300 acres of fine sand and gravel. With a view to exploiting these mines of wealth, Mr. Potts has purchased three large scows, and will establish a line to Baltimore.

Granite.

NORTH SULLIVAN, ME.

Continued From First Page.

There is one strong drawback, however, and that is transportation. A railroad could not enter the location at all, the nearest railroad being Waukeg, which must be reached by ferry. They do have water transportation with a channel sufficient to admit ocean going vessels, and all of the stone is shipped in that way to points in the East or South.

Prices of Curbing Too Low.

The different firms operating on this belt work are in harmony with each other as well as some adjacent quarries which are producing similar materials. Notwithstanding this the prices of curbing are far too low. They have been kept down, so we are told, by having to meet competition from other sections of the United States. An idea of the close price that they are getting is well given by the following illustration:

At the time when I called, a stike was imminent, and two or three of the quarry owners said they would either have to continue at the old prices or discontinue business as soon as present contracts were filled, that an advance in the wages of quarrymen would cut them out of the market. However, this is only temporary since an advance in the price of curbing must come before long. It is probable that there will be no difficulty in securing the co-operation of everybody entering the same market as the North Sullivan people.

At the quarry of Alonzo Abbott, which is running two derricks, we met Superintendent Frank E. Abbott, who was busy looking after a gang of men in a nicely opened up quarry with some good long sheets, ready to be plugged and feathered off. Mr. Abbott says that they have their summer's business already arranged and that they expect to get out a lot of curbing and paving both this year.

A short distance from this quarry was that of Robertson, Havey & Co., in charge of Augustus Havey, who with Ira Robertson, own the property. Mr. Havey said that the business could be improved upon, especially in the way of increased prices.

The two preceding quarries are located several miles from the village, and have a haul of about a mile or a mile and a half to the docks for shipping.

The quarry of Dunbar Bros., where we met Superintendent J. A. Gordon, of Franklin, Me., lies

back of these two some distance from town. There was considerable activity at this property also.

Difficult to Get Good Prices.

Wm. T. Havey, Jr., & Son have two quarries, but were only operating one at the present time. This quarry was not a very large one, yet plenty of stone was in sight, and plenty of work being done. Mr. Havey said it was no trouble to get work, but it was difficult to get prices, and that unless prices stiffened in the near future, he for one would shut down, because he did not believe in operating any proposition unless there was some money in it for him.

Crabtree & Havey have the largest opening in this locality. Their opening here covers several acres and the sheets have been taken down deeper than at most of the other quarries. At the time of our visit this quarry did not seem to be as busy as some of the others; on the other hand, there was more activity in the yards where the stone was being dressed to dimensions.

We were unable to visit the property of Hooper, Havey & Co., but had a very pleasant interview with Mr. Wm. R. Havey at their large store in



Alonzo Abbott Quarry, North Sullivan, Me.

the village. They are producers of rough and hammer Sullivan granite, making a specialty of paving and curbstone block.

It was probably due to the efforts of Mr. Wm. R. Havey that all the people in this locality work in harmony and stand ready to help each other out on large work. There is probably no section of the country which would be in as good a position as North Sullivan to take an enormous contract for curbing and give prompt delivery. This is rather an odd statement, perhaps, in view of the fact that they do not use a steam drill in any of the quarries, very little blasting is done, and the stone is nearly all wedged off and all of the drilling done by hand.

In view of what they are doing at North Sullivan to-day, one can not help but think there are wonderful possibilities there for a quarry thoroughly equipped with all modern machinery.

Mr. W. R. Havey is secretary of the Granite Producers' Association, and states that much good has been accomplished by the association, and he believes its usefulness will increase as time goes on.

MACHIAS, MAINE.

Among the younger and more promising granite concerns in Eastern Maine, the Machias Granite Co., under the management of Mr. Sam Holway is not to be considered among the least by any means. The granite has rather an odd and pleasing color, and takes an elegant polish. The crystals which make up this granite are of three distinct colors which blend in such a way as to give a pleasant pink combination of color. The quarry is located on the Marshfield Road, and is well opened up about three miles from town.

The stone lies in heavy sheets and seldom has flaws anywhere, so that large dimension stones are always available on short notice. The quarry is in such a shape that Mr. Holway says he could afford to deliver a considerable quantity of rough stock on board cars or on board boat at a very reasonable figure at the present time. The cutting plant is located at Machias. Other granite than that quarried by the company is cut here for monumental purposes.

The waste material from the quarry is being worked into paving blocks. This waste material, however, is not at all large as compared with many of the quarries in the extremely eastern section of Maine and New Brunswick.

Mr. Holway is a good keen business man, with abundance of energy, and this company is bound to be known in the future as one of the large producers.

CALAIS, MAINE.

Out from Calais, in two different directions, there are several properties, one of which is pretty well known, namely that of the Red Beach Granite Co., at Red Beach. This is the only large cutting shed and polishing mill in the extreme East of the United States. This plant is well equipped with lathes and makes a specialty of turning out such work, and does a great deal of polishing. Mr. George Tarbox is manager. The company has several red quarries, furnishing a pink and red stone of different shades, but it is probably that fully as much if not more stone is worked at this plant which comes from other quarries than is worked from their own. We have never been in any one plant where we saw such a large variety of stone, both as to color and texture being worked at the same time.

Between Red Beach and Calais, the Gardiner quarry, which has been opened up recently, is producing some dark granite.

On the opposite side of Calais, out away from Baring, the Baring Black Granite Co., located near Baileyville, formerly owned by F. H. Hall, is producing a large amount of handsome black granite. This property is closed down at the present time, owing to the fact that it is tied up in litigation. Mr. Hall sold the property, but it is probable that it will revert to him in the near future, in which event active operations will begin at once.



Quarry on Marshfield Road, near Machias, Machias Granite Co., Machias, Me.



Geo. M. Hanson Quarry, Calais, Me., on Charlotte Road.



Red Beach Granite Co.'s Sheds, Red Beach, Me.

Mr. George M. Hanson last fall opened up what appears to be a very promising quarry proposition in the production of very dark or black granite. This quarry will have quite an advantage over some of the others when it is fully opened up, in that it is located near the Washington County railroad, and about five miles from Calais. Sufficient opening has been made to show up considerable good stone. The natural conditions are good there for cheap production when once the quarry is properly opened up, and it could very readily be made a side-hill quarry. It is the intention to operate this quarry this summer.

SHOT FOR SAWING GRANITE.

Calais boasts of something that very few cities in the United States possess. It is the home of a shot works which makes shot for use in sawing granite and marble or other stone. Mr. W. F. Boardman is manager of this company at the present time.

SALEM, MASSACHUSETTS.

This city is blessed with several inventive geniuses who have turned their efforts to stone working lines. The American Granite Machine Co., Alfred F. Jones, president, have been at work for a number of years developing a machine for cutting granite. They are trying one of these machines at the present time at the plant of Jones Bros. at Barre. The machine is a belt driven machine and requires about 5-horse power to operate it. It is designed to strike 12,000 blows a minute and to cut three sides of a stone without moving the stone, and to do bevel or wash work and to take the place of bush hammered work.

The Salem Stone Tool Co. have also developed a belt driven tool to take the place of a compressed air outfit. It is arranged so that by use of a flexible shaft it is supposed to duplicate the ordinary automatic tool, but has the added advantage that a portion of it can be detached and an emery wheel attached for sharpening tools, or a polishing wheel for polishing granite can be used. There is one tool arrangement which is readily interchanged for all three purposes. When the success of this machine is entirely proven, as it probably is already where it is well known, it will probably be a popular machine with the small dealer who does not care to go to the expense of putting in an air compressor.

EAST MILTON, MASSACHUSETTS.

If you want to see one of the best equipped and most up-to-date plants in the Quincy District, go around and see Patrick T. Maguire or Maguire & O'Heron. The floor space of this plant is equivalent to about 250x60, aside from the other buildings and storerooms. Three heavy polishing machines are in use with all the modern equipments, everything necessary for the most economic use of compressed air. The plant is equipped with both steam and gasoline for power, there being sufficient to run the plant with traveling cranes and trucks sufficient to handle everything rapidly. They run from seventy to eighty men the year round.

This firm started in a modest way in 1880, and consisted of P. T. Maguire and James F. O'Heron. They started originally as cutters on monumental work, then in 1893 took on a quarry at Brookline, N. H., which was their first experience in that line, and proved an expensive experiment to them. The quarry business seemed to have been a losing game for them all along since in 1896 they quarried in a small way in the Quincy District. If it had not been for the success of their cutting operations, they should probably have felt the quarry losses more than they did. About 1900, they built a new shed on property owned by them at East Milton which cost them about \$1,500.00, independent of the land. In 1901, they took on forty acres of quarry land and

operated three quarries during 1902 and part of 1903. In the fall of 1903, they abandoned all but one quarry, which was a very good one, at East Milton, which was on the edge of the Quincy District, and this quarry is now being operated as a successful proposition.

Mr. O'Heron died in 1898, but the business has gone on just the same as before.

The quarry operated by this company furnished more stock than is required or can be handled conveniently in their own sheds, so that they supply some rough stock to other cutters in their vicinity and elsewhere. This company also manufactures an iron absorbent for the trade.

Mr. Maguire is thoroughly conversant with every phase of the granite business, and finds it



Maguire & O'Heron Shed, East Milton, Mass.

necessary to be round all the time in order to keep things moving at their best gait. Mr. Maguire's day is considerably more than an eight-hour day, and if he tells you he will be doing something, you can just bank on it that it will be done and done that way.

WORCESTER, MASSACHUSETTS.

A tour of inspection through the Troy White Granite Co.'s plant in Worcester, under the guidance of Mr. Knight, called our attention strongly to the fact that this company's quarries were producing a lot of handsome granite, all kinds of granite being worked here, of course, but the bulk of it was from their own quarries. A number of handsome pieces of work were just about finished up, several of them being combination pieces working in the Windsor green granite and producing some very beautiful effects.

Casey & Buckley, 162 Main Street, Springfield, Mass., another firm that started up a year or so ago, report that they have more business on hand at present than they will be able to get out according to agreement, but that the future prospect for the season does not look as well as it might. McGregory & Cassman, of 531 Main Street, seem to be in the same condition with reference to business as the above firm.

ALBANY, NEW YORK

We were fortunate enough to find Mr. A. A. Flint, manager of the Flint Granite Co., A. A. Flint & Co., and the Newport Granite Co., at the Albany plant, taking a general look at things. This plant is located between the two large cemeteries, but if there was no cemetery in sight, you would imagine as you stepped off the train at the station, which is adjacent to the Flint Granite Co.'s display yards, that you had stepped into a cemetery, since the amount of stock finished, all ready to letter, is quite large and distributed over a beautiful grass plat which is kept up with as much care as has ever been given to any cemetery. Mr. Flint says he believes in giving people something worth looking at in his display yard and in his advertising as well. There is a good sized cutting shed here, equipped with all modern machinery.

Inquiring about their outside properties, Mr. Flint says the Schenectady plant is running at about the usual gait, but that they were not as busy as usual at the Albany plant just at present. With reference to the Chester plant, he says that they have practically closed it down for the season, only keeping a few men there; but while they get good stone at the Chester quarry, the Newport stone has shown up so well that they are taking the bulk of their stone from Newport. The Newport stone is a very pretty stone, about like Barre medium in color, and works well.

Mr. Flint says the natural conditions at the Newport property are exceptionally good for the production of stone of almost any size desired and at very reasonable cost. This is probably why the Chester quarry has been shut down since it was more expensive stone to cut.

Mr. Flint puts an enormous amount of energy into everything he tackles and makes things come his way whether they want to or not. He does not believe in doing business unless there is a profit in it, and if all granite dealers would get that thoroughly into their heads, business conditions would be materially improved in that line. There will be just so many monuments used each year and when you are selling a monument, it is not so much a question of price as it is to find something that pleases the people.

The Newport Granite Co. have just installed a new 300-foot air compressor, and after they decided to put it in, they got very good action. Within three weeks after they had concluded that they wanted a compressor, they had it in and running. A Sullivan compressor was put in.

The Perryville Granite Co., which has been operating the granite quarries at Frenchtown, Md., has ceased to operate and are removing their machinery.

The Ozark Red Granite Co., St. Louis, Mo., has been incorporated with a capital stock of \$10,000.00 by Adolph Lopez, Jacob Lopez and Andrew J. Seahon.

A new quarry has been opened at Alexander, Me., near the quarry of the Baring Dark Granite Co., and a fine quality of black granite is being quarried. Calais parties are interested in the enterprise.

The Granite Co., of Artenteuil, doing business at 1956 Notre Dame Street, Montreal, Can., has been exposed by detectives as being a phony or lottery scheme. All tickets, books and cash, together with the men found about the place, have been taken in by the police.



Maguire & O'Heron Quarry, East Milton, Mass.

QUINCY, MASS.

QUINCY, MASS., May 23.—As in preceding years the past month has been a busy one with all connected with the trade. The severe winter had made tardy the delivery of stock to the cutting sheds, which for a while hampered the manufacturer in his endeavor to get Memorial Day orders shipped on time.

Stock shortage and the accumulation of orders have made overtime work obligatory in all branches of the business. It has not been unusual for polishing mills and cutting sheds to keep their full force at work up to 6 p. m. and after.

Better Freight Facilities Wanted.

The New Haven railroad system has not been an aid in getting the finished work away, so that not a few jobs will not reach their destination in time for erection on the mourners' holiday. Some of the manufacturers, particularly those whose yards do not abut the Plymouth division of the New Haven system at South Quincy, have reason to find fault at the treatment they have received from the railroad authorities. It is the mission of trade journals to aid in every fair manner, those identified with a business for which a paper is published and ROCK PRODUCTS will not be slow in stimulating agitation for better freight facilities for the granite trade in this section. It is of vital interest, not only to the local manufacturer, but also the distant dealer, that the goods will be shipped some where on time.

For years the home manufacturer has had to stand idly by, waiting the pleasure of the railroad people to better conditions here. Some minute improvements have been grudgingly given after a few of the interested manufacturers clamored unceasingly. Not many months ago it dawned upon a few men that the New Haven people were having it all their own way in the matter of freight receipts. Finished work from this district for Western and Southern points was shipped via Harlem River, which netted the N. Y., N. H. & Hartford railroad profitable returns. A few enterprising individuals installed a forwarding agency here and easily proved to the manufacturers that their goods could reach their destination as quick, if not quicker by shipping to Boston, where rival railroads would be only too eager to receive their goods.

Promise of Good Season's Trade.

The summer trade promises good and a canvas of the manufacturing district finds many manufacturers confident of a good season's work. Improvements are being made, both at shed and quarry, in anticipation of the summer and fall trade.

Swingle & Falconer have seen fit to budge their quarry in West Quincy. The firm experienced some difficulty in teaming their stock from the quarry to the depot and sheds. Threatened with being classed as trespassers should they use the old drive way, it became necessary to bridge the quarry were stock to be shipped with dispatch. As a result a steel span 90 feet in length and of sufficient strength and width for the safe passage of an ordinary stone team, has been erected by them.

The mortgage sale of the Quincy Quarries Co.'s property was postponed from May 4 to the morning of June 1, 1904.

An effort is being made to have the headquarters of the National Stone Cutters' Union established in this city. The present headquarters of the union is Washington, D. C.

The retail manufacturers have had a busy month erecting monuments in the cemeteries of Greater Boston. The weather has been to their advantage and some creditable work has been set up by them.

May is an off month for visiting dealers and only a few made calls on the local tradesmen. U. G. Doran journeyed here from distant Dallas, Tex., and left several orders with local manufacturers. W. F. Manning, of Plainfield, New Jersey, is a frequent visitor and looked in on a few dealers last month.

Following are the shipments of rough and finished granite during April: Quincy Adams, 5,035,945 pounds; West Quincy, 3,509,240 pounds; via the Quarry railroad, 1,905,650 pounds. Total, 10,450,835 pounds.

The Abiline Granite and Finishing Co., Abiline, Kan., continues to ship carloads of rough red granite which is being well received by the monument trade in Indiana and elsewhere.

THE BARRE DISTRICT.

BARRE, VT., June 1.—It is with a great deal of pleasure that I am able to say this month that the monumental business is certainly picking up and everybody is feeling a little better. During the past week or more orders have been coming in in quite respectable numbers. Most of the manufacturers are optimistic as regards the summer, and while the present situation is not one that will cause any one to throw his panama in the air and play Indian, it may be said that the post-Memorial Day outlook is "nae so bad." Freight facilities have caused trouble lately in many ways. It has been difficult to get cars for the quarries, and the Harlem River strike has made it necessary to change the route on many of the shipments, so that a general mix-up has resulted.

The Barre-Quincy Outing.

Arrangements for the annual outing this summer are progressing as rapidly as possible under the circumstances. All that the committee is now waiting for is an expression of opinion from their Quincy friends as to what the pleasure would be. The latter have been communicated with and will undoubtedly have something to say about it soon.



WILLIAM S. ALEXANDER, BARRE, VT.
Member of the firm of Bugbee & Alexander, and President of the Barre Granite Manufacturers' Association.

Cloud Bros., Rufus and Harry, an energetic pair of practical workers, have recently moved to a circular shed in the heart of the city and are doing a nice little business. Both of the boys are made of the right sort that induces people to help them along.

Beck & Beck are opening out quite extensively their light quarry and spreading out into new land. I found "Lote" holding the bull set at the stone shed the other day, notwithstanding the honor that was conferred upon him the other day at the State meeting of the German Order of Harugari when he was elected as the Vermont delegate to the supreme convention to be held in Pittsburg, Pa., September next.

Will Holden, the enterprising manager of the Trow & Holden Manufacturing Co., is sporting a Rambler Touring car, the largest one that has yet appeared upon Vermont roads. The Trow & Holden Co. have recently discontinued their Chicago office which has been conducted by Foster & Hosler, and their pneumatic tool business in the West will in future, be handled from the home office.

Nice Monument Jobs.

C. W. McMillan & Son have just finished three nice jobs, one of them a 25-foot spire monument, to

be sent to New York; another, an elegantly carved column die job, and another all hammered and carved monument. They report business as good and fair prospects for the summer.

The printers made a mistake in last month's issue when they dated the famous Lewis & Clarke expedition as having been made only a quarter of a century ago. It is needless to say that they should have added just three more quarters. A picture of the Clark monument appears in another column.

Canton Bros. are cutting a monument to be erected to the memory of Harry D. Elkes, the champion bicycle rider of the world, who was killed last year. The monument is to be erected by Boston and New York friends who have subscribed to the cost.

They Want Water.

The J. B. Rheinholter Co. and Guidici Bros., who occupy territory in a section of the city where buildings have heretofore been unknown, are having trouble with the city government. The all important issue that lies between them is the simple question of "water." It is not often that a Barre man makes a call for such an article, and perhaps that is the reason why the City Fathers are unable to satisfy the demands of the two firms when they insist that their plants be connected with the city water system.

The granite shed of J. T. Kelliher, half way between Barre and Montpelier, has been rented by the Robar-McCann Co., who have put in a stock of granite and commenced work.

Labor Agreement.

An agreement has been reached at the Woodbury granite quarries whereby the men running the pneumatic club drills get four cents more per hour than the hand drillers.

There was a little excitement at the plant of T. W. Eagan in Montpelier a few weeks ago, when about forty cutters employed there quit work for a day or two because a partition erected between the surface machine and the men, was not satisfactory to them. The matter was readily adjusted by the joint grievance committee, and the men returned to work.

Joseph Comi, of Montpelier, has moved to East Montpelier and is occupying the granite plant there which has been unused for some time.

Charles Bessey, of the Bessey Granite Co., has recently been renewing old acquaintances at his former home in Brooks, Me.

Extensive Cemetery Improvements.

By the will of the late John E. Hubbard a bequest of \$25,000.00 was left to the commissioners of Green Mount Cemetery, in Montpelier, with which to erect a chapel, receiving vault, and entrance gate. The commissioners have arranged with Frank E. Cleveland, a Boston architect, to furnish plans and specifications and work will soon be commenced on the job, which will be built of Barre granite.

John E. Sullivan, of Hardwick, has just commenced on his new granite sheds at that place. The work has been delayed several weeks, owing to the non-arrival of machinery. Wm. B. Donald, who recently embarked in the business, will occupy the sheds vacated by Mr. Sullivan.

The granite business in South Ryegate seems, from all indications, to be on the move. M. H. Gibson is building one stone shed now and is to erect another one later in the season. John Fraser has a new plant completed, and Courtney & Lonardi have begun work on a new shed. About 100 men are now employed in that town in producing the Blue Mountain granite for the market.

A World's Fair Feature.

J. J. King, of New York, has taken a splendid lot of photographs of scenes about the granite sheds, and the committee in charge of the World's Fair exhibit are having them put into book form to be presented to visitors at the St. Louis Exposition.

Kerr Albertson, president of the New York Granite Co., of New York, was in town recently on business. During his visit he was the guest of John E. and Donald Smith (E. L. Smith & Co.) at their stock farm where famous trout fishing abounds. At the annual dinner of the Williamstown Branch Fishing Club, which was held at the farm, he had a fine opportunity to distinguish between the flavor of Vermont trout and plain sucker. One member of the party caught a sucker a foot long and the plebian fish was served up along with the patrician members of his race. Mr. Albertson, by some chance, got the sucker.

Closer Touch With Dealers Needed.

I found Alex Anderson, of Anderson & Sons, trying to do ten men's work the other day in an effort to get a monument shipped so that the customer would receive it on time. Through all this "rip and tear," as is often seen at the granite sheds, I wondered if the purchaser always appreciates, as he ought to, the trials and struggles that it sometimes costs the hard working manufacturer to give pleasure and satisfaction to his patrons. Could the retail dealers come in closer touch with the producer they would be more willing, for many reasons, to stand for better prices to the public, and by sharing the increase, lift some of the burden from the shoulders of the man who has a stone plant on his hands.

A Card Index System.

I found one firm using a simple card system that is liable to avoid a great deal of trouble, especially in cases where a number of monuments are being boxed and shipped at about the same time. This firm has each stone accurately measured and the figures with a description and its destination, are placed upon a card and this nailed on to the box as soon as it is put together. This card remains upon the box until it is aboard the car, and is then returned to the file at the office for future reference.

Rock Products is devoted to the trade and makes no pretense of boycotting those who do not advertise.

Derricks and Other Improvements.

Whitcomb Bros. have recently put up a medium size derrick for Jno. E. Sullivan, at Hardwick, and they had just received a car load of derrick masts from Washington State when I called. This looks as though there might be something doing.

At Bond & Whitcomb's quarry, many improvements are being made. They have just completed a building 30x48 ft. for an electric power house, and have installed a 30-horse power electric motor. They are about to install a Sullivan air compressor and three Dallett plug drills.

Monumental Activity.

Rizzi Bros. have just begun cutting another spire monument for the Kilgus family at Louisville, Ky. They have already cut two others at the same design for Louisville parties. The die is 5 ft. 9 in. high and elaborately carved. The spire is twenty feet high and is draped on four sides.

L. J. Rizzi shipped a splendid lot of finely carved jobs for Memorial Day purposes, and has recently commenced on some orders of artistic design.

Stephen & Gerrard are now setting up the Over mausoleum at Munsie, Ind., and have just received an order for one of similar design to be erected at Brooklyn.

Young Bros. are getting out three big shaft monuments for the ex-governors of Missouri. One goes to Kirkwood, another to Richmond, and the other to Lebanon, Mo. The orders all came from the Abercrombie Stone Co., of St. Joseph.

The Harrison Granite Co. is cutting a large mausoleum for W. B. A. Jurgens, to be set up in the Lutheran cemetery at New York. It is of light granite and the dimensions are 33 ft. 10½ in. x 14 ft. x 20 ft. 5½ in.

F. Furbish, an architect from the office of Guy Lowell, in Boston, has been in town recently taking bids for the cutting of the Iowa State monument. The job calls for about 10,000 ft. of granite and the appropriation by the State for this memorial was \$120,000.00. If the job is let here the cutting will all be done in Barre and the carving will be done after the monument is set up in Iowa.

Big Building Jobs.

W. M. Fraser, the energetic manager of the Granite Construction Co., is meeting with success, as we predicted he would. He has already secured three building jobs of no little importance. They are for the Church of the Lady of the Snows at Woodstock, Vt., Bennett & Bowles of New York, architects, the Atlantic City, N. J., post-office, Davis & Davis, of Philadelphia, architects, and the United States custom house and post-office at Burlington, Vt., J. Knox Taylor, supervising architect.

The Barre Supply Co. has just sold a large Sullivan air compressor for the new plant of E. B. Ellis & Co., at Northfield.

Artistic Designers.

One of the high class artists of the granite trade is to be found employed in the shed of A. Zarrella in the person of one Michael Mai. He has just carved a noteworthy job for F. Mariani, the gran-

ite manufacturer. The monument is in memory of Mr. Mariani's daughter, who was burned to death at her home in Barre about a year ago. The carving consists of a bouquet of lilies and a scroll.

The genial countenance of C. D. Swasey beamed over a nice job that he is getting out for H. K. Swasey, of Haverhill, Mass.

Scott Bros. are always getting out something new and one can always find some very artistic small jobs under the hammer at their shed.

Jim Long, of the Smith Bros.' Granite Co., has taken himself away for a month's vacation.

News comes from F. T. Cutler, of Cutler & McDonald, that he will have that mammoth boulder



Design Produced by Parry & Jones.

set up at its final resting place in Syracuse by the time this issue is out. We expect to hear a very interesting story from Mr. Cutler when he returns.

Grinding Machine for Ellis.

W. A. Lane is building another grinding machine for grinding discs on granite lathes for E. B. Ellis, at Northfield. Mr. Lane built a machine similar to the one now on the market several years ago, but he has been adding many improvements until now the machine is a perfect success. Mr. Lane has also built, ready for instant shipping, six

small polishing machines, suitable for the retail trade. The arms are five ft. long and the back shaft 8 ft. long. This makes a very convenient machine for small surfaces, such as markers and patch work. He has on hand also several second-hand polishing machines, of larger size, thoroughly overhauled and rebuilt.

W. J. Lebaron is moving his plant to more commodious quarters is one of W. A. Lane's buildings.

Fine Soldiers Monument.

Parry & Jones are getting out a nice class of work as usual, notably a soldiers' monument that is to be presented to a town in Connecticut by a man named William H. Pine. It was to have been ready before Memorial Day, but the continued cold weather last winter made it impossible to work out of doors a great deal of the time, and the job is a few days late.

Railroad Improvements Promised.

It is with a great deal of pleasure that I note that the Central Vermont Railway Co. have become interested in providing proper railroad facilities for the vast deposit of white granite that lies in the district known as Cobble Hill. The surveying engineer of the company has made a survey for a new road from the tracks of the Williams-town branch of the C. V. to the quarries of the Barre White Granite Co., and the matter of laying the proposed new road is now under consideration.

Thomas W. Eagan, the well known granite manufacturer of Montpelier, recently suffered a painful accident.

The Suitor & Hall quarry at Woodbury will open in a few days with about fifteen men employed.

New Quarry at Barton, Vt.

News comes from Barton in the north part of the State, that John Hazel has opened a granite quarry on Barton Mountain, and has several men there at work. The granite is said to polish very nicely.

J. R. Carey, of the firm of F. S. Carey & Co., wholesale granite dealers, has returned to Zanesville, Ohio, to remain at the home office of the company. Charles Kennedy will have charge of the firm's interests in Montpelier.

Prosperous Granite Railway.

The Hardwick & Woodbury railroad, which carries the rough granite from the Woodbury quarries to the Hardwick cutting plants, is in a prosperous condition. By the end of this summer the road will be ballasted its entire length. The season was opened this spring with thirty-eight new cars. All the trestles are now secure by being filled with waste rock. There are nine and one-half miles of main line and twelve miles of sidings.

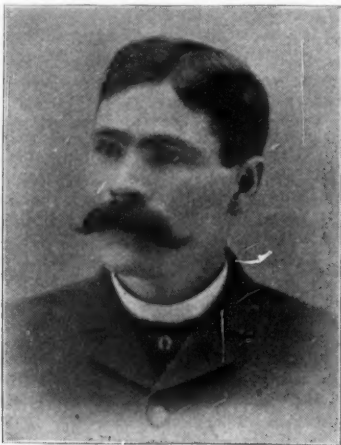


Quarry of Jones Bros., in the Dark Quarry District of Barre. E. L. Smith & Co.'s Quarry in the Distance.

Counting out sags and levels the road rises 1,002 feet in five miles, reaching at the summit an altitude of 1,652 feet, the highest point of any railroad in the State. At the trestle in the branch extending into the Woodbury Granite Co. quarry, there is, for quite a distance, a grade at the rate of 475 feet to the mile, the steepest possible to be climbed on smooth rails. Motive power is furnished by triple cylinder side shaft, and geared locomotives, known as Shaw's, each equal in strength to two standard engines of the common variety. This spring for the first time, it became necessary to employ two engines to do the work of the road.

E. L. Smith & Co.

We are publishing in this issue the photographs of two of the most successful of the granite men of Barre. They are self-made men of the sturdiest type, and the height they have attained in the



JOHN E. SMITH,
E. L. Smith & Co., Barre, Vt.

world of industry is due entirely to their own ability and determination. These two gentlemen constitute the firm of E. L. Smith & Co., and their names are John E. and Donald Smith, two brothers who came to Barre about twenty-five years ago, from Compton County, P. Q., and began work as stonecutters for the firm of which they are now the owners.

The firm of E. L. Smith & Co., is the pioneer. It was the first of any consequence to be established in Barre and was founded in 1868 by ex-Mayor E. L. Smith, who was then a young man.

Early in the 80's the two young men from Compton were taken into the firm and they at once saw the vast possibilities ahead of them.



Took Advantage of Opportunities.

and have never failed to become masters of whatever situation they have found themselves in. They were practical men to start with, and this gave them the right kind of a foundation to build upon. As is the case with others in Barre a large part of their success may be attributed to this fact. At the time when the present owners became members of the firm of E. L. Smith & Co., the latter had no plant worth mentioning, but they owned about 15 acres of the best quarry land on the dividing line between the dark and the light. This was at once opened up, and as rapidly as possible modern machinery was installed and the soil was found to contain valuable quarries of dark, medium and light stock in quantities that make it practically inexhaustible. To-day the quarries are among the best equipped and best paying of any in the country.

Nothing Too Large for Them.

The Smiths have never lost time in stumbling over things that appeared too large for them. They found a few years ago that a machine shop of their own could be used to advantage in connection with their quarry, and they accordingly erected a machine plant of considerable extent.

Their Extensive Equipment.

They installed a large Rand compressor which operates all three of their quarries. The compressor has a capacity of 1,700 feet per minute. The quarries are equipped with six large derricks of from 50 to 75 tons each, and a cable way 700 feet long with a capacity of 15 tons.

During their early days of getting their quarries into shape they did not neglect the cutting end of the business, and eighteen years ago erected two large circular sheds 500 feet in length on the Burnham meadow. This plant they occupy to-day and carry on a large business in this line.

First to Enter Building Line.

A few years ago they saw the possibilities that lie in Barre white granite for a building work and they became interested in the syndicate which purchased nearly one hundred acres of white granite quarry land on Cobble Hill, and which is now entering the building field under the name of the Barre White Granite Co.

When there is anything up-to-date the Smiths are after it; when anything is going on that will promote the trade or improve the general conditions, the Smiths are in it.

Credits to This Firm.

Among the famous monuments that have been cut by the firm are the Shepard vault at St. Paul, the Hill monument at St. Louis, the Philadelphia Brigade monument at Antietam, the Carmon vault at Troy, N. Y., an immense mausoleum that contained 52 car loads of granite, the Cluett monument at Troy, 14 feet square at the base with a second base and a die with a shaft four feet square, and rising 45 feet high.

Bugbee & Alexander recently closed their plant for several days to make some extensive improvements and some repairs on the interior of their shed.



VIEWS TAKEN AT THE QUARRY OF E. L. SMITH & CO., BARRE, VT.

Quit the Cutting Business.

The firm of McIver & Mathieson, who operated quite an extensive granite cutting plant, decided a short time ago to go out of the cutting business, and their entire equipment is being closed out at auction and at private sale. They will continue their quarry operations as usual.

George Stratton has got the large addition to his granite shed nearly completed and is already figuring on some large building contracts.

Record on Mausoleums.

Robins Bros. are trying to break the record on mausoleums, and they have got a good start on it, figuring on a year's basis. They have commenced work on the fifth large mausoleum that they have cut since January 1, 1904. One of the handsomest of the lot has a bottom base 16x25x15-3. It has four fluted columns in front, with two carved and fluted vases on each side. The pediment is a sunken



DONALD SMITH,
E. L. Smith & Co., Barre, Vt.

panel adorned with a raised cross. The roof stone for their latest job had just reached the shed when I called the other day. It measured 22-6x5x10 in.

Successful Polishing Machine.

E. Cavicchi is prospering with his newly invented polishing machine and is shipping a considerable number of them, notwithstanding the dull times. He has set up a nice machine plant of his own in the W. A. Lane Buildings.

E. W. Carle has been forced to call a halt in the "never ending grind" for a short time. He caught his fingers in a granite chain the other day, and as the chain wouldn't give way to the fingers, he came very near losing three. The doctor patched them up, however, and Ebe will soon be all the better for the rest he was obliged to take.

Mutch & Calder are cutting two large mausoleum jobs for New York parties.

One of the most attractive jobs seen this month was at the plant of George Walker & Sons. It was a firemen's monument for Woodlawn Cemetery.

Quarries.

The National Quarry Owners' Association.

D. McL. McKAY, Chicago, Ill. President
W. H. WALLACE, Bay Port, Mich. First Vice President
F. A. BROWN, Aberdeen, S. D. Second Vice President
S. M. HALL, Bucyrus, Ohio. Third Vice President
E. H. DEFEBAUGH, Louisville, Ky. Secretary-Treasurer

Official Organ, ROCK PRODUCTS.

BEDFORD, INDIANA.

BEDFORD, IND., May 27.—All quarries in this, the great center of the Bedford stone district, and from which it has derived its name, are now working full blast. The new properties that are being opened up all give promise of high reward to those undertaking the enterprises. Contractors all have plenty to do and the busy atmosphere of Bedford is resumed for another season.

Mr. F. D. Norton, one of the well known Bedford stone men, a man who has been mixed up in quite a number of quarries at different times, has sold out the Bedford Buff Stone Quarry to Wm. M. McMillan, who is president of the company, and Mr. R. F. McKinley, secretary and treasurer, and Mr. John A. Rowe, who is well known all over the country for the number of novelties and works of art which he has turned out from his sheds in Bedford stone. Mr. Rowe is also a prime factor in the Indiana Bedford quarries. The amount of stone used by the three men who have purchased the Bedford Buff Stone Co. themselves will insure an active operation of this quarry, Mr. McMillan being a prominent Chicago stone man. Mr. McKinley and Mr. Rowe both cut large quantities of stone at Bedford.

The Diamond Circular Saw.

Wm. Bradley & Sons' plant is a busy place, and Mr. Michael Wallner, the superintendent, is kept busy showing their new circular stone saw which was mentioned in the last issue of this paper. This saw is giving entire satisfaction to its owners.

It is currently reported that a diamond tooth circular saw which has been manufactured by a Scotch firm for sometime has been sold to a Bedford firm and will be delivered as soon as possible. This is a different type of saw. The saw in this case remains stationary (that is, the bearings of the saw remain stationary) and the table carrying the block of stone travels under the saw, while with the Meier's saw, the block remains stationary and the saw travels through it. The Scotch saw operates more like a slate saw, but the saw of course is much larger and built along entirely different lines. The cutting rate of the Scotch saw is not claimed to be as high as that of the American saw, while being capable of doing more rapid work, would not under ordinary conditions be run beyond that claimed for the Scotch saw. We mean by this that it will probably be economy to do it this way. With slightly less speed, there would be less danger of losing the diamonds which are the most expensive feature of this class of saws, but this is not as large an item of expense as most people would presume.

New Quarries Developed.

There is considerable new development at both Bedford and Bloomington and a number of new properties being opened up at both places. The Furst & Kerber Co. will soon be in the class of producing quarries. It is probable that the large derrick will be set up there before we go to press. This company will also, within the near future, erect a large and extensive stone saw mill.

Talking with Superintendent W. C. Fultz about the handling of men on the quarry and the recent fly-around over at the P. M. B., Mr. Fultz said

that he did not believe that it was necessary for a superintendent to have trouble in his quarry—that is, open ruptures, and made a remark that was very much to the point and very good advice, too. He said, "I aim to be around all the time, and whenever I see two men with their heads together for any length of time, I always get busy and that is usually the end of it." Mr. Fultz is an old-timer in the business and has had sufficient experience so that he knows just about how to tackle these problems.

A little further up Dark Hollow, Mr. John Torphey, a veteran quarry superintendent of the district and the man who loaded the first carload of rock that was shipped from Dark Hollow twenty-eight years ago, is now opening up a new property for Wm. N. Matthews, and will be able to load stone within sixty days. Mr. Torphey was with the P. M. B. Co. for a long while.

The Nationality Question.

The day before our visit Mr. Torphey did not have very many men at work, owing to the fact that some of his men were inclined to discriminate on the nationality question. This did not inconvenience Mr. Torphey for any length of time because he is too old a hand at the business. The next morning after the men had gone out, he had more men than he could use and no questions asked as to nationality. When asked about this matter, he said, "I had a bunch of men at work Monday morning, and some of them comes to me and says, 'Are you going to put those two fellows at work over there?' and I told them they were already at work, and that they were good workmen so far as I knew. I had no reason to do anything but let them work. Well, they told me if these men were going to work, they would not work, and that was agreeable to me because the men that were making this trouble were men that told me the day before, after they had wheel stone for half a day, that they would not wheel any more stone but would wait until there was some dirt to wheel, and I needed men that would wheel stone, and not only that, but I was of the opinion that I was running operations here."

It seems that the bone of contention was that several of the men employed were Italians. "Now" Mr. Torphey says, "I really have no occasion to ask a man what nationality he is before I employ him. I might just as well discriminate against an Irishman, an Englishman or a Scotchman, when it comes to getting a man for a day's labor." Mr. Torphey is entirely right, and we sincerely hope that every man in the Bedford district will adhere to the same principles. Things are coming to a pretty pass when it becomes necessary for an employer to make a prospective employee swear to his nationality, and if he does not happen to have come from the right section of the country, turn him down, no matter how good a workman he might be, simply because he is afraid of having half a dozen other men who are working for him quit without notice. The whole thing is absurd and the quarry owner should not countenance it for a minute. Now is a very good time to intimate to these men that they are asking things that are unreasonable and unjust and that they will not be considered at all.

Rough House at the P. M. B.

It is well known that there is quite a scattering of foreigners among the laboring classes in the United States. This is true not only in the quarries, but in other lines, and there are quite a few Italians among these. Some of them have been in this country quite a while and are considered by most people as being a pretty fair class of workmen for common labor.

During the last year there have been employed at the P. M. B. quarry probably fifteen or twenty of these, and for many years a couple of men who are said to be Italians, have been running steam drills, these two latter having been considered very capable men. All spring there has been more or less friction between the Italian element and the American element, probably in the main due to a few sore-heads among the American employees. Feeling has been brewing for some time and finally came to a head during the last month, owing to some difficulties arising between one of the Italians and one of the Americans, which became sufficiently interesting that blows were exchanged, and immediately both factions took sides, and it is reported that the Americans, being in the majority, dumped the Italian element over the bank. The Italians working as common laborers, of their

own accord, did not go back to work. The union held a meeting and demanded that these two Italian men who had been running machines for years, be discharged. Mr. Joiner was entirely right in his decision when he told them point blank that so far as he was concerned he would not do anything of the sort, that it was none of his business what nationality a man was, and that so long as a man did an honest day's work he did not care where he came from.

It is probable that the men will realize that they have asked too much, or have been a little unreasonable in the heat of passion which always follows wrangling in a body of men, and we sincerely hope that the P. M. B. Co. will stand by their first decision and we know they will have the sympathy of every other quarry owner in the district.

This little incident is commented upon only to show how unreasonable some of the demands made by the unions in the stone business are. Just such things as these will certainly be the means of the ultimate breaking down of the power of the unions, not only in the stone trade but in other lines.

Could Handle a Little More.

Mr. John Owen, of the Indiana Bedford Stone Co., was busy at their cutting plant, which is located between their two quarries. Mr. Owen says, "We have contracts enough to keep us busy for some little time yet," but could not help but admit that they could probably get out a little more stuff if it was called for.

Ben Wykoff, superintendent of the Blue Hole Quarry, which is owned by Mr. H. L. Thornton, 11 Johnson Building, Cincinnati, says there has been a material increase in their business in the last few weeks. He with the rest of the Bedford stone superintendents, thought it would be a very unwise thing to do to establish such a precedent as the allowing of any body of men, union or non-union, to dictate what nationality of people he should employ, or what not. This quarry seems to be a favorite with monument men.

Mr. Brooks, of Brooks & Curtis, was found in the office of that company, very busy, but with time enough to say a good word for Rock Products. Mr. Brooks is a believer in the benefits of association and the concerted action of intelligent, reasonable men.

Brooks & Curtis have only been in the stone business three or four years, but feel that they have had their share of business. This is perfectly natural, since they are both old stone men. Mr. Brooks having spent fourteen or fifteen years with the P. M. B. people.

At the Bedford Steam Stone Works, we failed to find Mr. Ed Thornton, but the gentlemen in the office reported that there had been a material increase in orders within the last few weeks.

On the George Doyle & Co. property we found a shelter from the storm and had a very pleasant half hour's chat with Mr. Callahan, whom we found doing the tailor act for fair, and when we need some buttons sewed on our clothes, we are going to send them up to him. Mr. Callahan, between stitches, was telling Mr. Ed Sohn of the Bedford Foundry and Machinery Works what he wanted in the way of repairs, and also that he wanted them right away quick, and we guess he will get them. Mr. Sohn says, "Nearly every week we are putting on a little extra shed at our plant and we are going to get out the goods if we have to work under a tent to get out the overflow orders."

We are going to suggest that R. F. McKinley, of the Bedford Buff Stone Co., and the Climax Stone Co., and John A. Rowe, of the Indiana Bedford Stone Co., and the John A. Rowe Co. be fined or turned out of the union for being found in their offices after 5 o'clock. Neither one of them seemed to be in a bad humor about being there at that time of day and gave the Rock Products representative a hearty welcome with a good word.

Mr. McKinley states that business is very good at the present time, but he does not know how long it will continue. Mr. Rowe, owing to the diversity of his interests, is always busy. If the building work is not crowding, he will go to work and get up some delightful new design for monument purposes.

The Stanford Granite and Marble Co., Stanford, Ky., has been incorporated with a capital stock of \$10,000.00. The company will operate granite quarries in Lincoln County.

BLOOMINGTON, INDIANA.

BLOOMINGTON, IND., May 28.—Bloomington conditions were very well reflected in the general attitude of the owners and operators. We thought at first that the smile that was on their faces might be due to the pleasant weather, but on talking matters over, we found that it was the general business condition which had put most of them in such good humor. Almost without exception the various quarry owners had work to do, but as a general rule, they expressed the opinion that they did not anticipate any very heavy business this year. There is probably not a single quarry in the district running up to its limit.

Who is the Busiest Man in Bloomington?

H. A. Woolery, of the Star Stone Co., Hunter Valley Stone Co., Perry Bros. Stone Co., Mathers Stone Co., and Central Oolitic Stone Co. We left Woolery in his office at half past nine at night and the next morning before 8 o'clock we met him returning from one of the quarries which was six or seven miles out of town. He had been out there and made his usual rounds before most people are busy.

During the last month the Mathers Stone Co. have had a fire and lost their power house, but fortunately the power was not materially injured, and within the last three weeks the power house has been rebuilt and everything is running as usual. This company has also just put in two wire saws built by the New Albany Manufacturing Co.

The Chicago Bloomington Co., of which Mr. Wm. Johnson is manager, have the building all up for their new shed and the boiler mounted, although the boiler is not enclosed. It is to be one of the most thoroughly equipped mills in the district. None of the machinery has as yet been placed. The new mill is 53 by 160 feet.

At the Acme Quarry, of which Mr. Wm. M. Matthews, of Bedford, is president, and John Matthews superintendent, we saw a nicely opened up property. Mr. Buskirk who is also an interested party here, was also on the property sizing up progress.

Cures the Defects.

At the Monroe Stone Co. we had a nice little chat with Mr. B. F. Adams, who has been experimenting during the last year with several types of pneumatic drills. While Mr. Adams did not just come out and say so, we could see plainly that he has a preference for Keystone drills for this work.

After considerable experimentation, Mr. Adams found that the most satisfactory thing in the way of a tool was a Morse steel drill instead of the bits ordinarily furnished by the pneumatic tool manufacturers for use on hard stone. Mr. Adams will no doubt have further alterations made and improvements on the drills, which they are using, because whenever he observes a weakness or a defect, he sets about to find a cure for it.

Mr. O. M. Fulwider of the United States Quarry Co., was on their property with a party of men who are considering opening up another quarry.

The Crown quarry, under the able direction of Mr. H. F. McPhetridge, are making good headway with their development work. Several acres have been opened up and stripping for future operations is going on very nicely.

This company expects during the summer to put in a mill consisting of six gangs of saws, two lathes and one planer.

There is nothing doing at the Diamond quarry. The Bloomington Quarry Co. was also temporarily closed down while some changes are being made.

Development work is progressing nicely at the Eagle quarry, but they were much hampered by water and will undoubtedly have to put in a pump in the near future.

At the Monarch Quarry, which is newly opened up and in good producing shape, we found Mr. A. G. Allen, superintendent, on the bank and keeping a careful eye on the operations. Talk about the long hours of the poor laboring men, compare them with those put in by Mr. Allen. Mr. Allen leaves at 5 o'clock and gets back at 7. It might pay him to join the union.

The controlling stock of the Central Oolitic Stone Co. has changed hands recently and the transfer will be made on June 20, and after

that date it is probable that some changes will be made in the management of the company.

Stripping operations were very evident in the Bloomington district, but they did not seem to have gotten along as far as the Bedford people in this respect. The Bloomington people have as a rule more ground to remove and less stone stripping to do than in the Bedford district.

L. C. Currie of Currie & Son, one of the Bloomington monument men who handle not only Bedford stone but granite and marble as well from all sections of the country, was out of the city, settling up several jobs over at Coal City, Ind.

Consider Stripping at All Times.

John S. Roper, secretary of the Grafton Quarry Co., St. Louis, Mo., in a recent letter said: "The great trouble that I find with the quarrymen in this part of the country is, that each one tries to see how cheap he can sell his product; none of them seems to try to find out how much they can get for it. We could all sell just as much stone at a fair price as we can sell at a 'cut-throat' price, and all be better off. Your theory that the price of stone should advance with the increasing cost of stripping, is very well, in its way, but the trouble would be that all the quarries do not require stripping at the same time. If my neighbor has his quarry stripped and is prepared to sell stone, he would hardly be willing to put the price up to accommodate me because my quarry is not stripped. Stripping is one of the things that must be taken into consideration at all times."

Wineman & Barryta, of Wheeling, W. Va., are installing a new crushing plant, Austin machinery being used.

The Board of Public Works at Duluth, Minn., contemplate the purchasing of a stone crusher at a figure close to \$1,200.00.

The Western Stone Co., Lamont, Ill., is putting in a new crusher, which requires an extra derrick and other mechanical appliances.

The plant of the Delphi Stone Crusher Co., Delphi, Ind., is about ready to begin operations under the management of Edward Bliven.

The Pittsburg Limestone Co., with quarry at Williamsburg, Pa., is loading 150 and 200 cars a day. All the quarries lying east and west are doing well.

The Lake Shore Stone Co., Lannon, Wis., have agreed to furnish 1,000 cars of rubble and footing to be used in the construction of the Rock County Sugar Co., of Janesville, Wis.

The Decarbonated Lime and Stone Co., Waynesboro, Pa., say that they are overcrowded with orders for crushed stone. They will be compelled to increase their capacity to a large extent.

Longenecker & Funk, of Lebanon, Pa., operating stone quarries at Derry Church, Pa., are making arrangements to build a siding from the railroad to their quarries and make other improvements.

The Northern Crushed Stone Co., Gouverneur, N. Y., have set a large force of men at work in their quarry preparatory to filling their heavy spring orders. They are crushing seven car loads of stone daily.

The General Quarrying Co., of Glen Falls, N. Y., has been incorporated with a capital stock of \$6,000.00. The directors are: D. H. Cowles and W. E. Lawrence, of Glen Falls, and James McPhillips, of Waterford.

Fairchild-Gilmore-Wilton Co., Corona, Cal., are shipping paving blocks to Los Angeles, Cal., in large quantities. They also ship large quantities of porphyry rock to be crushed and used in the making of concrete.

The Lantry rock quarry, near Belton, Texas, has been closed down on account of the death of the owner, H. E. Lantry, the successor of Lantry Bros. This quarry has furnished an immense amount of ballast and rock.

The Lebanon Valley Stone Co., 825 Greenrick Street, Reading, Pa., has been organized under the management of Edward L. Groves. They turn out crushed stone, screenings, fluxing and building stone that will be placed on the market.

Mr. Charles West, formerly of Hillsboro, has removed to Findlay, Ohio, to manage the West Park Crushed Stone Co., which plant is to be the largest of its kind in the country. The works are controlled by F. P. Douglas, of Monroe, Ohio.

Davis & Mayne, Beatrice, Neb., operating large quarries near Blue Springs, Neb., are arranging to erect a large stone crushing plant of 1,000 tons daily capacity. The Union Pacific railroad will put in a switch 2,000 feet long and connect the quarries with the railroad.

The LeClaire Stone Co., Bettendorf, Iowa, is opening up a new quarry which will be developed almost exclusively for furnishing rock for sidewalk purposes. The white stone of that locality makes a very superior concrete. New machinery for screening and crushing will be installed.

Workmen employed by Philip P. Stifel, of St. Louis, Mo., have unearthed a ledge of white limestone at the intersection of Marcus Avenue and the Natural Bridge Road. The ledge was found several feet under the ground at a thickness of 2 to 3 feet, and seems to be the same material of which the coping for the courthouse was taken.

Warren Rock, Evan Rock and George McConnell have leased a valuable piece of quarry land, with the privilege of buying same, near Urbana, Ohio, and the Pennsylvania railroad has commenced the construction of a switch to reach the plant. Messrs. Rock & McConnell will commence shipping a quality of stone which is known as the Belleaire grade, as soon as practicable.

The new Cranesville (N. Y.) quarry will be opened soon with a crusher and power capacity of at least 600 cubic yards a day. The officers of the company are: J. W. Potter, of Utica, president; Alonzo Schaupp, of Albany, vice president; August John, of Schenectady, secretary and treasurer; Alanson Robison, Schenectady, general manager, and Olin Callahan, Albany, general superintendent.

The plans and specifications for the new crushing plant for the Board of Public Works of St. Albans, Vt., have been completed and will be submitted to the city council for approval. In connection with the new plant will be an arrangement for recrushing of the tailings of the crusher, that is, the large pieces known as No. 4 stone will be brought back and run through the crusher again, making a No. 3 size of stone or a stone that will pass through a 2½-inch ring.

The Lake George Quarrying Co., recently incorporated at Sandy Hill, N. Y., have elected D. H. Cowles, president; James McPhillips, secretary, and W. E. Lawrence, treasurer and general manager. The company will re-open the mill at their quarry which has stood idle for over a year. They will turn out two grades of stone, one suitable for window casings, trimmings, sills, etc., and the other a greenish marble, which takes a beautiful polish in much demand for decorating purposes.

The partnership of John S. Lane and Arthur S. Lane, in business at Meriden, Conn., and Springfield, Mass., under the firm name of John S. Lane & Son, and the partnership of John S. Lane, Arthur S. Lane and E. Leroy Lane in business under the firm name of John S. Lane & Son at Hingham, have been dissolved. John S. Lane & Son, incorporated, a corporation under the laws of Connecticut, will carry on the business of the Westfield and Hampden quarries, and the Lane Quarry Co., a corporation organized under the laws of Connecticut, will carry on the business of the North Cohasset quarries.

President Roosevelt has settled the much agitated controversy of the present site of the Agricultural building. Enough money has been appropriated for the two wings of the new building and money will be forthcoming for the central portion to complete one of the handsomest buildings in the Government group.

Plans and specifications for the new St. Paul's Church at Binghamton, N. Y., have been completed and are now open for inspection at the office of T. I. Lacey & Son, where local contractors and others who wish to put in bids for the building may make detailed examinations. The plans show that most of the front of the church will be stone and the body of pressed brick. The front and side walls as far back as the transept will be of red brick, the trimmings being either of Indiana limestone or Scranton pink stone. The foundation will be of ashier blue stone and the steps and window sills of blue stone. The building will be of Gothic design and the specifications are said to be very elaborate.

Stone.

General Results Achieved by the Geological Survey in Twenty-Five Years.

The members of the United States Geological Survey in Washington recently celebrated the quarter centennial anniversary of its organization. The more important results achieved by the Survey during the twenty-five years of its existence are set forth in its recent Bulletin (No. 227) entitled, "The United States Geological Survey; its Origin, Development, Organization and Operations." This bulletin is intended for gratuitous distribution, and copies of it will be given away as souvenirs in connection with the Survey's Exhibit at the Louisiana Purchase Exposition.

The United States Geological Survey and its officers, during the last twenty-five years, deserves great credit for their untiring efforts and for the valuable works which they have made available to the public. A great deal more has been done by this body than appears on the surface. Through their efforts there has been in different sections of the country material improvement in the method of winning raw material from Mother Earth, and in the methods of handling the material after it is won. The Survey has not only indicated the value of many regions for certain purposes, but it has also been the means of preventing an expenditure of large sums of money on the development of territory which has been explored by the Survey and was known to be non-productive in certain mineral resources. The Survey Assistants should receive a hearty welcome in every section of the country and should be accorded every opportunity to study economic conditions.

Special Value of Soapstone Finish.

Following are a few reasons given by the American Soapstone Finish Co., Chester Depot, Vt., for using the finest: It is uniform in quality and color, a perfect non-conductor of heat. It does not deteriorate with age, moisture or frost. It can be finished in any style that ordinary plaster can and no sizing is necessary for decorating. The material is a beautiful pearl grey, it is not porous and does not chip or map-crack. It is susceptible of a high polish and can be washed without injury. The cost compares favorably with other kinds of finish.

Used With a Lime Putty.

The directions for use for finish are, slack enough lime to make as many barrels of stiff putty as you require, while thin stir in three bags of finish to each barrel of putty; run it off together a week or more before you want to use it; wet the wall evenly and put the finish on as thin as you can handle it. Use neither plaster nor sand. It is also prepared in colors for use in front mortar and fine brick work and also as a base for delicate tints on walls. Further information no doubt may be had by writing the company.

We are under obligations to Mr. F. W. Pierce, cashier of the Chester National Bank, for information as to the geology in this section. And by the way Mr. Pierce has one of the finest private collections of minerals and fossils we have ever seen, and should you go to Chester you will do well to ask to see them.

Value of Stone Products.

An interesting feature of the Geological Society's report is that of the production of stone. Very few people will appreciate that the value of our stone production in 1902 was \$64,559,099.00, an increase of \$11,523,479.00 over 1890. It is significant that, though the value of the stone production was greater in 1902 than in the year previous, the increase was less than that of 1901 over 1900, because of building strikes and strikes of quarrymen. It would not be surprising, if, for this reason, the production of 1903 showed a reduction. But the greater demand for crushed stone for road purposes may offset that.

A charter was granted to the Reading (Pa.) Cut Stone and Quarrying Co. recently. Capital stock \$5,000.00.

The Winona Stone Co. has received a contract to furnish cut stone for two new buildings to be erected at St. Charles, Minn.

The Waukesha Stone and Quarry Co. have resumed operations. Extensive improvements have been made. Frank Knobel is manager.

The mill and machinery of W. H. Leonard Stone Co., at Sylvia, near Dickson, Tenn., were destroyed by fire recently. The plant will be repaired immediately.

Reed Bros., Birmingham, Ala., have installed a complete stone sawing plant of patented pattern. The firm hope to build the stone business up to what it ought to be in a city of this size.

Henry Van Zeeland will open up a stone quarry near Appleton, Wis. All the stone used for building purposes in that city has been hauled from Kaukauna at considerable expense. The enterprise should be successful.

The Batavia Stone Co., Batavia, Ill., has been capitalized at \$25,000.00, for the purpose of quarrying stone and contracting for stone construction. The incorporators are: I. S. Stephens, John Hendrickson and L. J. Griffith.

The Ingalls Stone Co., Oneonta and Binghamton, N. Y., has a contract for \$90,000.00 worth of cut stone for the new building of the Mutual Life Insurance Co. in the latter city. The building will be ten stories high and will cost \$500,000.00.

The Lake George Quarrying Co., Glen Falls, N. Y., has been incorporated with a capital stock of \$6,000.00 with the following incorporators: William E. Lawrence, Daniel H. Gowles of Glen Falls, and James McPhillips, of Watford.

The American Lava Co., Chattanooga, Tenn., have bought necessary machinery to go into the manufacture of slate and soapstone pencils, school, foundry and tailors' crayons, etc. They want to hear from quarries and grinders of slate and talc. Also to hear from the trade in its regard to their requirements.

The Winslow Stone Manufacturing Co., Winslow, Ind., has been organized with the following officers: D. H. Thiry, president; Carl Klusmier, secretary; John W. Stilwell, treasurer, and W. S. Whiting, manager. They will manufacture the stone in all shapes for building purposes.

The Pfeiffer Stone Co., Batesville, Ark., will furnish stone to be used in the construction of the new State capitol at Little Rock. Batesville marble or St. Clair limestone as it is called, thus receives a merited recognition of support as a building stone. The company has put in a planer and a number of gang saws and machinery of the latest pattern is propelled by steam and electricity.

The decision of Secretary Shaw in favor of sandstone for the new Federal building in Cleveland, Ohio, is regarded as an important victory for the Cleveland Stone Co. Secretary Shaw refuses to substitute granite in the construction although there has been considerable agitation regarding the use of that material. The contract for the material will be an important one.

The Fort Madison and Appanoose Stone Co., Fort Madison, Iowa, are making preparations for a unique and extensive display of their stone at the Louisiana Purchase Exposition at St. Louis, Mo. Their display and other apparatus connected therewith have already been shipped. This company's display at the Chicago Fair was awarded first honors for building stone, and they expect to hold up their reputation.

The Glenmont Stone and Construction Co., with its principal office at Glenmont, Ohio, is one of the new Ohio corporations. The new concern succeeds the well-known firm of Purdy Bros., and controls the stone quarry near Glenmont, which is one of the best equipped quarries in this section of the State. This company also controls a well equipped plant for contract work, which is now located at Kent, Ohio, on the B. & O. railroad, and is in charge of the manager, James B. Purdy. The only new party to the old firm is S. B. Russell, formerly of St. Johns, Mich., but for the past few years a resident of Ohio. Purdy Bros. have been successful in developing the quarry and securing contracts and Mr. Russell has had considerable experience in railroad work.



LEADING CONTRACTORS.

Sketches of the Plants, the Methods and the Men Who Make the Cut Stone Industry.

PAPER NUMBER ONE.

In the line of building stone contracts there is no more enterprising or thoroughly up-to-date firm than Peter & Melcher, Steam Stone Works, are located at Logan and Rupp Streets, Louisville, Ky. They have just completed the addition to their plant of a new generator and twenty-ton electric crane and latest pattern of the New Albany Manufacturing Co.'s stone planer.

Mr. Melcher takes personal supervision of each and every detail of the very complete establishment. They are busy working upon the stone for the United States postoffice building at Lawrence, Mass., which is being built entirely of Bedford stone. The last of this job will be shipped out about the first of August, as they are already shipping upon the cornice. The job will comprise from 75 to 80 car loads.

The office building for the Kentucky Refining Co., at the corner of Shelby and Goss Avenue, is a very handsome specimen of sand-rubbed Bowling Green Stone, just finished by this firm upon the lines drawn by Mr. Fred Ehrhart, architect.

Another contract in Bedford stone is the Sylvia and Hickory Avenue school house designed by Thomas & Bohne, architects, and is being pushed to completion in time for the opening of the school year.

Battle With the Elements.

The new electric traveling crane which runs entirely through the plant is a monster, even when speaking of such a mammoth thing as a traveling crane. Mr. Peter stated that several weeks ago during a storm that both the travelers were blown off the elevated rails, or rather by the force of the wind driven to the end of the rails, and falling to the ground in a tangled mass of iron. The travelers were fastened with a chain of $\frac{3}{4}$ -inch iron, which was snapped like a thread, liberating the gigantic apparatus, and this goes to show the force of the storm winds that blow in these parts. This damage has been repaired by replacing one of the travelers, an operation requiring several weeks of active work.

A 45 h. p. dynamo drives the machinery for the traveler, and also supplies the electric lights with which the whole plant is illuminated. A 75 h. p. Buckeye engine drives the power for the gang saws and the planers. Right near their engine room is a well of mineral water 150 ft. deep furnishing water to the entire plant, both that used in the gangs and in their sand washing apparatus. The water from this well is slightly tainted with sulphur and is probably a chalybeate. All the men employed about the plant pronounce it a very healthful and desirable drinking water after one gets used to it, and at the same time it is perfectly clear for the other uses in which it is employed.

Sifted Sand for the Gangs.

All the sand used in the gangs first goes through a washing machine which consists of a sifter operated by power over a huge wooden trough. Quantities of water are run into the sand while the sifter is being oscillated back and forth. This washes away all the soft clay substances so that the clean white sand goes through the sieve, while the larger gravel is discarded and turned out of the sifter. The clean gravel thus becomes a by-product and is exchanged for unsifted sand, to parties wanting the pure gravel, thus making the sifted sand really cheaper by the operation.

Peter & Melcher have quite a stock of rough stone on hand, consisting of Bedford stone, Bowling Green stone, Lake Superior red stone and Rock Castle freestone.

With pardonable pride does this firm point to the United States Post-office building at Kansas City, Kansas, and the Collis P. Huntington Library, at Hampton, Va., to say nothing of similar monuments "closer to home" as the character of work which they turn out.

Peculiarity of the Strikers.

A short time ago there was a strike among the workmen at the plant which was instigated by a tool sharpener. It seems there was a misunderstanding, for the firm was unable to find out the real cause of the strike. Upon investigation one of the granite cutters acted as spokesman for the strikers, and informed Mr. Peter that the firm was owing money to the tool sharpener, and until the account was settled they could not go to work. Mr. Peter insisted that he did not owe the workman anything, and if he did he respectfully requested the gentleman to present his bill. After some little parleying the bill was presented, which amounted to the enormous (?) sum of eleven cents. This difference in the accounts was promptly



Peter & Melcher, Steam Stone Works, Louisville, Ky.

settled and all of the stone cutters resumed work perfectly satisfied, after being out on the strike for something over two weeks before this explanation was forthcoming.

Speaking of the present conditions they report plenty of business on hand, but with the outlook not so flattering for the remainder of the season. They feel that they could probably take care of quite a number of contracts beyond what will probably come to their share.

The Monumental Branch.

This firm is also in the monument and granite business, receiving the rough material direct from Barre district in Vermont. They have recently



Office Building Kentucky Refining Co., Louisville, Ky.

erected in Cave Hill cemetery a sarcophagus monument to the memory of George Boshen, of the Frank Fehr Brewing Co., of Louisville, Ky. It is of Barre Granite of tasteful design and they are erecting of the same material a splendid shaft in the family lot of Mr. J. C. Kilgus, besides a large number of lesser jobs too numerous to mention.

The trouble between the stone cutters and the planing machine hands in several stone yards in Newark, N. J., and vicinity, have been adjusted. The bosses agree that if a stone cutter employed on a machine is discharged another stone cutter shall take his place in preference to a planer, and vice versa.

The Ulster Bluestone Co., Kingston, N. Y., are straightening out the difficulties of the \$100,000.00 worth of mortgage bonds which were issued in 1893.

Miller-Kopp Cut Stone Co., Washington, D. C., has been incorporated at \$10,000.00 by: Samuel Miller, Margaret Kopp, Louise M. Miller and Franz Kopp.

Ira Eddy has purchased an interest in the Wilson Stone Co., at Fargo, N. D., and hereafter the business will be conducted under the name of Wilson-Eddy Stone Co., with Mr. Eddy as manager.

The new opera house at New Lisbon, Wis., will use Portage red stone for cut stone trimmings, and a bank and office building at Westby, Wis., will use Raindrop and Portage stone for cut stone trimmings.

Mahan & Co., 1116 Chamber of Commerce Bldg., Chicago, are getting their fair share of business, though business has not been as brisk as it might have been, however, the prospects for fall trade are very good. This firm handles Bedford stone exclusively, and ships it all over the country, including Canada.

W. E. Sparks, of Birmingham, Ala., is shipping a quantity of stone to Nashville, Tenn., to be used in the erection of a residence for Dr. J. P. McFerran. It is known as the Birmingham brownstone, and Mr. Sparks hopes that the excellence of the material may lead to further shipments of the stone to this district.

Pipe Covering and Steam Insulation.

Mr. S. H. Davis, M. Sc., in the May issue of the Journal of the Society of Chemical Industry, gives the results of an exhaustive series of experiments with a view of determining the relative value of the various covering materials or insulating materials for the protection of steam pipes for the prevention of abrasion. From the results obtained, he prepares the following table which gives the co-efficient or conductivity. This co-efficient of conductivity expresses the number of calories of heat lost per square meter of area expressed by transmission through one meter by the insulating medium with a difference of temperature of one degree C. between the two sides. The real meaning of a co-efficient makes very little difference so long as they have all been figured to one basis. From this table, which follows, and a price list of the materials mentioned there, it would be possible to figure the relative efficiency for each product per dollar spent on each one.

Covering.	Calories per sq. m. per hour.
1. Magnesia	0.039
2. Magnesia sectional thick	0.054
3. Slag wool sectional	0.057
4. Morley's composite	0.068
5. Mica sectional, double	0.072
6. Asbestos board and hair felt	0.073
7. Mica flexible, thick	0.081
8. Asbestos rope filled with slag wool	0.091
9. Asbestos rope filled with magnesia	0.092
10. Remanit and slag wool	0.094
11. Asbestos cloth, ribbed	0.113
12. Leroy mixture, thick	0.129
13. Asbestos rope filled with asbestos fibre	0.133
14. Asbestos cloth containing sections filled with magnesia	0.133
15. Creswell's plastic asbestos, No. 1	0.142
16. Creswell's plastic asbestos, No. 2	0.148
17. Plastic slag wool, covered with black pitch	0.151
18. Leroy asbestos plastic	0.161
19. Hennett-Lawes plastic	0.181

However, there are other things to be taken into consideration, such as the durability of the covering on the pipes, their resistance to abrasion, and their resistance to deformation or breaking up from the necessity of moving the pipes.

The discussion brings out the fact that no matter what covering is used it is always desirable to coat and cement the cracks with some pasty material which is a non-conductor, and then afterwards to coat these pipes with some water-proof paint, especially where they are exposed to the weather. Of course in this list the best insulators are the ones which have the lowest conductivity. Work done by other people would seem to indicate that magnesia coverings are the best from the point of resistance to radiation.

Rock Products.

SUPPLEMENT-TWO PAGES.

INFORMATION SHEET FOR THE USE OF OUR ADVERTISERS.

Vol. III.

LOUISVILLE, KY., JUNE, 1904.

No. 3.

MONUMENTAL POSSIBILITIES.

Samuel Holmes, lumber operator, at Erving, Mass., died May 4.

W. C. Fricks, grocer, of Saratoga, N. Y., died recently. Address his estate.

Henry M. Bishop, New Haven, Conn., died recently. Address his estate.

C. D. Frey, butcher, Los Angeles, Cal., died recently. Address his estate.

J. J. Schirmer, Hemet, Cal., jeweler, died recently. Address his estate.

Herbert Guillot, Sacramento, Cal., tailor, died recently. Address his estate.

Daniel Truff, San Francisco, Cal., grocer, died recently. Address his estate.

Sidney E. Stocker, Easton, Pa., in the planing mill business, died recently.

Henry Planz, of H. P. Planz & Sons, tailors, San Francisco, Cal., died recently.

John Wallace Alderman, timber dealer, of Wilmington, N. C., died recently.

John H. O'Rourke, general contractor, died at his home in Brooklyn, N. Y., May 6.

Albert Olmstead, in the lumber and coal business, died at Batavia, N. Y., April 28.

Edward Powers, civil engineer and weather expert, died at his home at Delaven, Wis.

Jacob Hoffman, Los Angeles, Cal., dry goods and notions, died recently. Address his estate.

Edward B. Potter, of Potter & Jordan, carriage painters, New Haven, Conn., died recently.

Thomas G. Barber, Orange, N. J., in the wood working business for many years, died April 26.

George W. Patterson, of the Board of Water Commissioners, of Westfield, N. Y., died April 28.

Donald Bain, brewery supply dealer, Buffalo, N. Y., died at his home, on April 11. Address estate.

Elisha Woodruff, of the Woodruff & Meguire Lumber Co., Rockport, Ill., died April 26, at his home in that city.

Fred W. Nolker, only son of the well-known St. Louis brewer, Wm. F. Nolker, died at his home in that city recently.

Claude McLaughlin, of the firm of McLaughlin Bros., Annapolis, Ont., died April 19. He leaves a widow and four children.

John F. Krueger, son of Gottfried Krueger, a prominent brewer of Newark, N. J., died April 22. He was his father's private secretary.

Willard W. Bryant, lumberman, died recently at his home in Buffalo, N. Y., and leaves several grown children, his wife having died fifteen years ago.

Diederich Heins, treasurer of the Consumers Park Brewing Co., Brooklyn, N. Y., died at his home April 14. His wife, two sons and three daughters, survive him.

Abraham H. Tower, of the firm of Tower Bros. & Co., lumber dealers, Cohasset, Mass., died April 29, at his home in that town. He is survived by his brother, N. B. Tower.

Samuel Somers, engaged with his two sons, Warren and Herbert Somers, under the corporate style of the Somers Lumber Co., Atlantic City, N. J., died recently at that place.

Lorenzo Vaughn, for many years a lumberman, at Providence, R. I., died at his home in that city April 14. He had but recently retired from active business, turning his interest over to W. P. and Herbert W. Vaughn, his nephews.

G. W. Knox has staked out the foundation lines for his new monumental works at Bellevue, Ohio.

Clarke Merchant, president of the firm of Merchant & Co., metal workers, died May 7, in Philadelphia, Pa.

Patriotic citizens of Ortonville, Mo., have started a fund to erect a soldier's monument in that village at a cost of \$1,650.00.

Edward Holmes, of the firm of E. & B. Holmes Machinery Co., machinery manufacturers, Buffalo, N. Y., died April 12. He is survived by a widow, brother and business associate, Britain Holmes.

The P. N. Peterson Granite Co., St. Paul, Minn., have purchased the London Monumental Works at Duluth, Minn. The firm will make this plant the depot for their Wisconsin and Northern Minnesota business.

Senator Fairbanks, one of the twenty-one trustees of the McKinley Monument Association, says \$500,000.00 has been raised, and the trustees will decide in the near future what kind of a monument is to be erected.

The Daughters of the Confederacy, at Trenton, Tenn., have raised funds for the erection of a monument in the public square of that city. Enough money has already been collected to justify the ordering of the monument.

Hon. John W. Deering, ex-Mayor of Portland, Me., died at his home in that city April 26. He had a large number of interests in connection with Howard Winslow and his son Phillip J. Deering as the firm of Deering, Winslow & Co.

Arrangements are being made by W. C. Crone-meyer and other leading citizens of McKeesport, Pa., for the erection of a monument over the grave of Queen Alliquippa, the famous Indian Queen, who is buried where McKeesport now stands.

The Masonic Grand Lodge of the State of Maryland will erect a handsome monument to the memory of the late Jacob H. Medairy, who for forty years was secretary of that body. The monument will be erected in Greenmount cemetery.

It is probable that J. Pierpont Morgan, 23 Wall Street, New York City, will join and assist a local committee in the erection of a monument to the memory of his forefather, Major-General Daniel Morgan, of Revolutionary renown, at Winchester, Va.

General A. R. Taylor, Memphis, Tenn., chairman of the committee to raise \$11,000.00 for a monument to General Forest, in that city, says it will be only a question of a short time now when the whole amount will be raised and a monument will be completed as soon as practicable thereafter.

The Board of Directors of the Tanner Monument Association accepted plans for a monument to be erected over the grave of the former governor of Illinois, to be placed in Oak Ridge cemetery, at Monticello, Ill. The design is for a mausoleum, the body to be placed inside. The monument is to cost \$25,000.00.

A mausoleum designed by Tiffany & Co., New York City, that will cost \$35,000.00 will mark the last resting place of former Governor John R. Tanner in Oak Ridge cemetery, at Springfield, Ill. Until the quality of the granite to be used in the construction is determined Tiffany & Co., will be unable to make a figure on the construction.

The Daughters of the Confederacy, at Huntsville, Ala., have raised \$2,000.00 by subscription for the purpose of erecting a handsome monument to the memory of Confederate soldiers. The contract for the monument will be let at an early date, as a committee has been appointed to select a site and choose the marble out of which it will be carved.

The Tennessee Marble Co. is opening up a new quarry at Concord, Tenn.

Mrs. Mary Cox died at her home at New Rochelle, N. Y., May 18. Address estate.

Mrs. Nancy Rose, lighthouse keeper at Stony Point, N. Y., died at that place May 17. Several children survive her.

The City Council of Danville, Va., will erect a monument to the memory of the late city engineer, Capt. C. A. Ballou, in Reservoir Park.

Robert Allison, of Cincinnati, Ohio, died suddenly in that city March 23. He was an old and honored citizen and pioneer type founder.

Mr. Samuel Edmund Seaman, 147 W. Eighty-seventh Street, New York City, died suddenly May 15, at his summer home at Great Neck, L. I.

Mr. John Ward, who for nineteen years was vice president of the Standard Bleachery at Carlton Hill, N. J., died at his home in Passaic, May 15.

Members of the G. A. R. and prominent citizens of Beloit, Wis., have raised \$4,000.00 for the purpose of erecting a soldiers' monument in that city.

Mr. Robert Stockton, grandson of a former Governor of New Jersey and a well known lawyer, died at his home in Elizabeth, N. J., May 17. Address estate.

Henry O. Shepard, president of the Inland Printer Co., and also president of the H. O. Shepard Co., died at his home on Ashland Boulevard, Chicago, Ill., December 31, 1903.

Frederick George Renner, senior member of the firm of C. F. Woerishoffer & Co., Brooklyn, N. Y., died at his summer home at Greenwich, May 14. He was born in Bremen, Germany.

John Kennedy died at his summer home in Syosset, L. I., May 14. He was for many years a master mason and builder of Brooklyn, N. Y., where he raised a large family. Address estate.

Romeyn Van Valkenburg, who for many years was engaged in the jewelry business in Manhattan, died May 12, at his home No. 223 Keap Street, Williamsburg, N. Y. He was well known in Masonic circles.

Mr. Warren Barnhart, head of the corporation Barnhart Bros. & Spindler, type founders, died at his home in Chicago, Ill., January 7, 1904. He is survived by a widow and one son, W. Earle Barnhart, who lives in Pasadena, Cal.

James Boyd Martindale, of the Martindale Mercantile Agency, 395 Broadway, New York City, died May 17, after a long illness. He is survived by his son, B. W. S. Martindale, who resides at No. 161 Rugby Road, Brooklyn, N. Y.

John W. Lounsbury, banker and intimate friend of John D. and William Rockefeller, dropped dead May 18, at his home at Port Chester, N. Y. He was vice president of the First National Bank at Port Chester and connected with a number of the large institutions of that city. Address estate.

Miss Rosa Crouch, of Baltimore, Md., will erect an imposing monument to the memory of her father, Frederick Nicholls Crouch, the author of "Kathleen Mavourneen." Miss Crouch has recently come into possession of a fortune by the settlement of the estate of her grandfather, Frederick William Crouch, who was royal bandmaster to William IV.

Governor Odell, of New York, has signed a bill appropriating \$1,500.00 for the erection of a monument on the battle field of Second Bull Run to the memory of the Fifth New York Volunteers, better known as Duryee's Zouaves. Col. James W. Webb, chairman of the committee of veterans who has been promoting the bill, says it is the purpose of the committee to dedicate the monument September 5.

ROCK PRODUCTS.

BUILDING PROJECTS.

It has been voted to build a new school house at Mahomet, Ill.

The Farmers & Traders Bank, of Wrightstown, Wis., will erect a new bank building to cost \$20,000.00.

The School Board of Galesburg, Ill., will erect a new high school building in place of the one burned down recently.

The Iowa National Bank, Sioux City, Iowa, have decided to erect a 7-story bank and office building in the near future.

Hamlin & Co., East Bloomfield, N. Y., has broken ground for a new bank building which will be of brick and cut stone.

The Board of Education, at Aurora, Ill., has appropriated \$75,000.00 for the purpose of erecting a new high school building.

The Northeast National Bank, Elkton, Md., has purchased a site upon which they will soon erect a handsome bank building.

The contract for the new academic building at the Naval Academy has been awarded to the John Pierce Co., of New York, for \$1,379,900.00.

The Board of County Commissioners at Atlanta, Ga., approved the plans for a \$15,000.00 jail, and bids will be asked for the construction of same.

Kewanee, Ill., is about to put up a new high school building at a cost of \$65,823.00. J. A. Ream, at Galesburg, Ill., has received the contract.

Fissel & Wagner, contractors of New York City, have been awarded the contract for the erection of a \$50,000.00 Carnegie library at Gloversville, N. Y.

The County Commissioners at Cuthbert, Ga., have approved the plans and will at once advertise for bids for the construction of a \$15,000.00 jail in that city.

The City Council of Newark, N. J., has voted an appropriation for two school buildings, one at \$75,000.00 and another at \$65,000.00, to be completed October 1.

Parr & Hulsebus, of Peoria, Ill., have completed plans for a new school building at Deer Creek, Tazewell County, Ill. It is to be of brick and to cost \$6,000.00.

During the next few weeks the plans for the Rossville (Ga.), National Park Entrance Gate will be decided upon. Park engineer Betts will then receive bids for its construction.

Arrangements have practically been completed to build a Masonic Hall at New Decatur, Ala., at a cost of \$20,000.00. A site has already been secured and the necessary funds are available.

The Wirt Dexter Estate, Chicago, Ill., will erect a business block on Wabash Avenue for the Walter M. Lowney Co. The plans for the building are now in the hands of Holabird & Roche, architects.

The Board of Education, Bridgeport, Conn., has appropriated \$16,000.00 for the immediate erection of a school building. Architect C. T. Beardsley, Jr., has been commissioned to prepare the plans.

The City of Tifton, Ga., has been bonded for \$20,000.00, for the purpose of erecting a school building which will be an exact duplicate of that at Columbus, Ga., one of the finest in the State.

The Governor of New York has signed three bills for armory appropriations as follows: Rochester, \$350,000.00; Binghamton, \$121,000.00, and Flushing \$70,000.00, making them legal and operative.

Portland, Me., is to have a handsome memorial church. It will be of stone with red granite trimmings. Work on the structure will begin at an early date. Victor Hodgins, of Bangor, Me., is the architect.

The Boston Realty Co. will erect a six-story office building in Pasadena, Ga. Architect C. W. Buchanan is in charge. The building will be six stories in height, having a facade of pressed brick and terra cotta, and when completed will be the largest and handsomest office building in Pasadena.

The George A. Fuller Co. has been awarded a contract for the erection of a thirteen-story office building at Monroe and Clark Streets, Chicago, Ill. The exterior of the building will be limestone, brick and terra cotta. The estimated cost of the building is \$700,000.00. This company has also closed a contract to erect the Northwestern office building in Chicago.

Messrs. Cowell & Love, of Huntsville, Ala., are drawing plans for a handsome new opera house at Decatur, Ala., that will cost from \$15,000.00 to \$25,000.00. It will be up-to-date in every respect.

Moultrie County, Ill., will erect a new court house in the city of Lincoln. Messrs. Deal & Ginzel, architects of Lincoln, have been instructed to draw plans for a decidedly modern type of building to cost \$75,000.00.

The City Council of Gadsden, Ala., have appropriated \$25,000.00, for the purpose of erecting a city hall. It will be modern in every particular. The final plans and specifications have not yet gone out to the architect.

The plans of Frederick E. Field, Providence, R. I., have been adopted for the erection of two school buildings of ten rooms each in that city. The plans call for a brick building with granite and limestone trimmings.

T. S. Moody, Chattanooga, Tenn., has been awarded the contract for the erection of a new high school building to be finished within ninety days after work is started. His bid was \$30,497.00; Architect R. H. Hunt.

Plans and specifications for a city hall building at Rockford, Ill., are now ready for the bidders. Local contractors will not make any effort, as it will be a big contract and will take a firm of large financial backing to carry it.

Gault & Gault, architects, have submitted plans for the proposed Elk Hall at Vincennes, Ind. It represents a four-story building to be made of either brick or stone. The matter is before the Vincennes Lodge of Elks.

Louis J. Wilde, San Diego, Cal., is to erect on Fourth Street in that city a modern theatre to be known as the new Pickwick. Work will be rushed on the new structure, which the managers wish to have completed in time to open the season.

Plans and specifications for the proposed new armories at Gloversville and Oneonta, N. Y., have been approved by the State Armory Board and bids are to be advertised for immediately. The State appropriation is \$62,500.00 for each armory.

Birmingham, Ala., is to have a new union station in which the Central of Georgia and the Alabama Great Southern railways are combined. The proposed depot will cost about \$25,000.00, and the work of clearing up the ground has already begun.

Work on the Stockton-Budd office building at Jacksonville, Fla., has begun. This building will be five stories high with light colored brick, steel supports and a heavy plate glass front. J. C. Haldna, general contractor and J. R. Blivin, architect.

A movement is on foot with the Board of Supervisors for Washington County, at Salem, N. Y., for the construction of a new \$25,000.00 jail, according to the specifications of the State of New York. This building is a necessity for the near future.

A bond issue of \$200,000.00 has been voted at Birmingham, Ala., for the purpose of erecting a high school and two additional grammar school buildings. The work of construction will be commenced as soon as plans can be drawn and contracts awarded.

Thomas Cockerill & Son, New York City, has been awarded the contract for the erection of the new Hester Street school for \$518,000.00. The style of the building is French renaissance. It will be built of buff and blue Indiana limestone, gray brick and terra cotta.

Plans and specifications for a new school building on the Grant site at Moline, Ill., will be ready for the contractors in a few days. Architect Bogotte was successful in the competition. He will superintend the construction and complete the building by September 1.

Mr. H. C. Ewald will erect from plans prepared by Architect A. Goenner, a three-story apartment house in Washington, D. C. The dimension of the building will be 25x100 feet, constructed of brick, with Indiana limestone trimmings. The cost of the building will be \$12,000.00.

The municipal building commission of Washington, D. C., composed of Secretary Shaw, and three district commissioners, have issued calls for bids for the construction of the new municipal building for the District of Columbia. Proposals will be opened June 9. Work will begin immediately after the awarding of contract.

Captain J. F. McNeely, secretary of the Armory Commission, of New York City, writes that within a few days advertisements will be inserted in the Birmingham papers calling for bids from contractors who desire to build the armory. The plans and specifications are about complete.

Plans for a new building for the Duane Street engine house in New York City have been filed. The new building is to be three stories high with a facade of ornamental brick and trimmings of limestone at an estimated cost of \$80,000.00. The architects are Trowbridge & Livingston.

The plans of Charles O. Whitmore, architect, have been accepted for the erection of a \$25,000.00 school house at Farmington, Conn. The building will be of brick, two stories high, 32x91 ft. on the ground, with slate roof and brown stone trimmings. Specifications now open for bids.

The plans of Joseph R. Powell, architect of San Francisco, Cal., have been adopted for the erection of a new City Hall at Eureka, Cal. The structure will be in Italian Renaissance, of granite, pressed brick and terra cotta. The estimated cost is \$75,000.00, and the work of construction will commence at once.

Plans have been filed for the erection of an eleven-story office building on Fifth Avenue and Thirty-second Street, New York City, for Mary Bell as owner. It will have a facade of brick and limestone with terra cotta trimmings. Robert Maynicke is the architect and estimates the cost to be \$700,000.00.

Plans have been filed for the erection of a 12-story fireproof apartment house, to be built for Jermyn Realty Co., at Broadway and 61st Street, New York City. It is to have a facade of brick and limestone with terra cotta trimmings. The estimated cost is \$575,000.00. Milliken & Moeller are the architects.

Cass Gilbert, of New York, has about completed plans and specifications for the erection of a ten-story building for the firm of S. Schener & Sons, Newark, N. J., at a cost of \$75,000.00. The building will be constructed of limestone and brick, the first two stories of stone and the remaining ones of brick with terra cotta trimmings.

George J. Metzger, architect, Buffalo, N. Y., has been engaged to draw plans for the new music hall in that city. The structure will have a floor space of 150x125 feet and will be large enough to accommodate 3,000 or more people. The old Cyclorama building is now being torn down to make room for the new structure.

Gloversville, N. Y., is to have a Federal post-office, James Knox Taylor being the supervising architect. The building will cost between \$60,000.00 and \$65,000.00. The exterior will be of gray face brick, finished in lime stone and terra cotta. The steps leading to the entrance will be of stone and on either side at the top will be pillars surmounted with clusters of electric lights. Bids for the construction of the building will be received from now until June 9, at the office of the supervising architect, Washington, D. C., when the contract will be awarded and the work immediately done. The contract will call for the delivery of the building complete on October 1, 1905. All contractors must submit samples of materials to be used in the building to the architect.

The alterations upon the Capitol at Washington, D. C., will comprise the addition of thirty-three rooms for the use of the Senate and an equal number for the use of the House. Two years will be required to accomplish the alterations and the expense incurred will be about \$2,500,000.00. Every care will be taken to avoid interfering unnecessarily with the integrity of the historic structure, and the plan of the model is actually one drawn in the middle of the last century by Architect Thomas U. Walter, who designed the House and Senate wings. The area covered by the extension will be 35,000 square feet. A model of the building is on exhibition in the rotunda of the Capitol. It is 18 ft. in length and was made at a cost of \$7,000.00. It gives in concrete shape, an idea of the great marble portico, which, matching the wings is to mask the present white-painted sandstone face of the middle part of the edifice on the East. A person entering the completed Capitol by the new entrance will pass through a pillared pylon into a magnificent vestibule 108 ft. long, which opens into the rotunda. Historically speaking, the Capitol is the most important building in the United States. The corner stone was laid September 8, 1793, with a speech by the "Father of His Country."

Monuments.

REPRESENTATIVE ESTABLISHMENT.

Sketch of the Muldoon Monument Co.'s Operations at the Present Time.

James R. Fones, of Little Rock, Ark., has just completed the erection of a very handsome "Scipio tomb" monument by the Muldoon Monument Co., of Louisville, Ky., to the memory of his father, James Amon Fones, the millionaire hardware dealer, at that place. Elsewhere the illustration of this monument is presented. Mr. M. Muldoon says that it is the largest "Scipio tomb" that has ever been erected, being somewhat larger than the original, which is in the Memorable Appian Way near Rome. This style of monument is very popular at the present time, and justly so, for a monument that will not last lacks the principal requisite for which it is erected. The original tomb of Scipio Africanus was erected more than 2,200 years ago of Italian marble, and is in a perfect state of preservation upon its original setting at the present time. The Fones monument at Little Rock is constructed of Barre granite, hammer finished, and it consists of only four pieces in all which may be readily distinguished in the illustration. The base is 9 feet 6 inches by 15 feet, and was set up in Little Rock at a cost of \$10,000.00.

Another very handsome piece of work is a mortuary urn for the remains of Evan J. Coleman, from the crematory at Los Angeles, Cal. The urn is of polished French black granite about 2 feet high and 14 inches wide, the name plate being in the shape of a shield, and the lettering showing white upon the black polished surface. Upon this urn is a very ingenious piece of carving in the two rings, one on either side, which are cut from the single piece of granite, but working free in their sockets. Mr. Muldoon explains that with his wide experience in the monument business that this is one of the most difficult feats of stone cutting that he has ever seen, and it is really surprising that such perfectly circular rings could be cut to hang free in the sockets, all made from one piece of material. The urn will be placed in a vault at Cave Hill cemetery upon a limestone pedestal now in course of preparation.

A monument for the Rev. Gideon Babcock Perry, D. D., L. L. D., to be erected at Hopkinsville, Ky., is a very handsome piece of work and of a design considerably out of the ordinary.

The monument proper consists of a granite slab erected upon a base about 6x10 ft., embellished on the front with architectural designs in relief, a column on either side, surmounted by an arch with acanthus decorations, leaving in the center space for a bronze medallion portrait of heroic size, the name plate also being of bronze with raised letters. The granite work is to be a combination of polished and hammered finish. The several parts are about completed and ready for shipment. Dr. Perry was a much beloved Episcopal minister of Hopkinsville, Ky., and this monument will cost \$3,000.00.

Mr. John R. Lowe, sculptor and designer, at the head of this department of the Muldoon concern, showed a prospective drawing of the Goodlett monument recently erected at Memphis, Tenn. The design is thoroughly original, and in a unique and effective result does the designer no little credit. The base is 9 feet square, the whole monument being 17 feet high. The die is three-quarters round set in the center of four columns, the back quarter of the die extending beyond the circle with two flat surfaces to the center of the two



Marble and Granite Shop of Phelan Bros., Calais, Me.

back columns, the back of the monument forming a straight line or surface quartering into the columns. This is completed with a Grecian canopy and cap, the whole surmounted by a censor with bronze rings and chains in loops. A bronze portrait bust is placed in front of the die, all the other work being constructed of hammer-finished Barre granite, with Grecian architectural carvings and decorations. The acanthus leaf is conspicuously in evidence, with raised letters upon the name plate. Architecturally speaking, this monument is a very pleasing ensemble, with forceful lines and a tasteful distribution of embellishment, and when the size and effect is considered the price of \$5,000.00 seems very reasonable.

Mr. Muldoon entered the monument business in 1857, and he has organized by his indefatigable efforts the leading monumental establishment of the South, having direct connections with quarries in Barre and Italy. For many years he was accustomed to make an annual visit to the quar-



Office and Works of Geo. W. Leighton Granite Co., Portland, Me.

ry and sculptuary interests in Italy, which personal experience gives him a very extensive view in the monument business, in all the stages of its development, and his information is the more interesting, because of his splendid memory and vivid though brief descriptions.

The plant is equipped with electric appliances for the hammers and other tools used in the process of carving and finishing. Three different electric outfits were put in before the finally successful adjustment was attained.

The business of this establishment goes on year in and year out, gradually growing larger and developing into newer lines, for the people who purchase high class monuments often think about the matter for years before finally settling to the one idea for execution, and as it is the lot of man to die pretty regularly new parties are always entering the horizon of prospective customers.

MONUMENT MEN AT SALEM, MASS.

Salem is blessed with a number of live, active monument companies. Some of them have quarries and some of them have not. There is a great deal of jealousy and rivalry among the various companies here, which is all wrong; such things are not conducive to the most profitable business for all concerned. The old saying, "Competition is the life of trade," might well be modified by saying, "Good, lively, friendly competition is the life of trade."

Many of the monument dealers in Salem say that prices are entirely too low, but when the suggestion is made that perhaps it is their own fault, they will say, "Our neighbors would sooner take a job and lose money on it than let us get it." This company has several quarries, one pink and should be this: "If we can not get the job for such a price that we will have a good fair profit left, something for our risk and trouble—why, the other fellow is welcome to it, no matter who he is."

A call at O'Rourke Bros.' plant showed us clearly that Manager M. J. O'Rourke not only knew how to use the tools, but how to put them in condition as well. We found him at the forge, working like a good smithy in the absence of his blacksmith, but I am afraid he worked overtime, and if the Blacksmiths' Union had caught him at it, they surely would have strung him up. This company has several quarries, one pink and one gray, located at Brookline, N. H. The sales room and office is at 73 North Street. You can always be sure of a hearty welcome and courteous treatment any time you call on M. J., no matter how busy he is.

The Frankfort Marble and Granite Co., on Washington Street, Salem, Mass., do not work so many men as some companies, but you will find in their storeroom a nice assortment of imported marble and granite. This is an old firm which has been going since 1874. The manager said that the spring trade had been pretty fair, while business prospects for the summer looked pretty good, but they did not expect any exceptional business.

W. E. Curtis, of C. E. Curtis & Sons, which is one of the largest monument firms, states that they have had all they could handle this spring and had considerable work booked ahead, so that they anticipated rather a heavy season. Their office and show room is on New Derby Street, but their cutting plant is on Canal Street, and a visit to the cutting plant shows that about all the available working space is being used. Eugene Hammond is foreman of the cutting shed.



Fones Monument, at Little Rock, Ark., by the Muldoon Monument Co., Louisville, Ky.

Abraham Lincoln Monument.

The present movement in Washington, D. C., to erect a monument to the memory of President Lincoln, at the Capitol, recalls the organization and at the same time the mysterious disappearance of the National Lincoln Monument Association, which was chartered by an act of Congress March 30, 1867, together with the fund, probably more than \$100,000.00, that was collected between 1867 and 1882 when the last record of the association was entered.

The list of original incorporators included such prominent men in those days as James Harlan, Alexander Ramsay, Nathaniel P. Banks, Sidney Perham, Schuyler Colfax, Frederick Douglas, Godlove S. Orth, Shelby S. Cullum, Samuel Shellenbarger and Richard Yates.

General F. E. Spinner was the last treasurer of the association, and at the same time he was Treasurer of the United States. The last Congress record of the association is an act passed in 1882 providing that five trustees should constitute a legal quorum of the association, but the names of the trustees do not appear upon this record. It has been suggested that if the books of the treasury department were carefully examined the \$100,000.00 or more subscribed by the people and placed in General Spinner's care, will be found safely on deposit. Nearly all the original incorporators have gone the way of all the earth, but there is no doubt that there are yet living men whose memory may be relied upon to revive the necessary information to make available this fund subscribed by the people of the nation in amounts of \$1.00 and upwards more than a generation ago.

Building More Commodious Quarters.

Miller & Clark, Americus, Ga., write: "Our sales compared with last year are equally as good and prospects for business bright. We have sold numbers of good monuments this year besides our cheaper trade. We are running full time and have orders ahead for three or four months. We are now building more commodious quarters at our new site on S. A. L. railroad. Our main building will be 100 ft. long and 40 ft. wide. We will add a rubbing bed, travellers, etc., to our already well equipped plant of pneumatic tools and polishing machines, etc. We expect to increase our power from 8-horse to 15-horse. About half the sales made at this season of the year are sold to be paid for in the fall, usually after the farmer sells his cotton. We hear of cheap agents who are having their orders filled at the different wholesale marble firms in Georgia. They sell us material and we have a legitimate place in business and are often in competition with the wholesale people of whom we buy, if reports be true, this is wrong and should be remedied in some way. We have never heard The Kennesaw Marble Co. at Marietta charged with this but we have of several others. The companies finish the work and furnish agents at wholesale prices. We appreciate Rock Products and must say that it is to our mind becoming a very useful journal and forging rapidly to the front."

R. W. Dodge, of the McNeal Marble Co., Gainesville, Ga., under date of May 31, says:

"Our business is the best it has ever been for the time of the year. The farmers seem to be in better heart, owing to the price of cotton, and sales are easily made. We have, in the last few months, built a new plant, and have equipped same with the latest pneumatic machinery, which we are very much delighted with."

Cornwall, N. Y., is to have a soldiers' monument. Charles Curre, Rev. Lyman Abbott and James Stillman are named as trustees to carry out the idea.

A. O. McMath & Son, Herkimer, N. Y., have put in pneumatic tools in their marble and granite monumental works. They have a very up-to-date plant.

The Smith Monumental Works, of Norwalk, Ohio, report a fine line of orders in progress of completion, and a good stock of granite and marble in their yards.

The White Crystal Marble Co.'s quarry located at North Gouverneur, N. Y., is engaged in enlarging the quarry preparatory to getting out a big season's stock.

The St. Lawrence Marble Co. recently opened a new quarry opposite its mills at Gouverneur, N. Y., and struck a vein of the finest product ever discovered on its immense holdings.

Richmond, Va., City Council has appropriated \$20,000.00 to aid in the erection of an equestrian monument to Gen. J. E. B. Stuart, the dashing Confederate cavalryman.

John C. Beck has bought an interest in the Beck Marble and Granite Works, from H. C. Zierke, at Brainard, Minn. The firm is now composed of John C. Beck and Christian Shurson.

The Columbian Marble Quarrying Co., Rutland, Vt., are working on a large number of small contracts, shipping to nearly every State in the Union, but have no large contracts at present on hand.

The Archer Marble and Granite Works, Steubenville, Ohio, say: "We have bought the shop of the late John Noble at Wellsville, Ohio, and intend to run it as a branch to our Steubenville shop."

The Akron Insulator and Marble Co. and the Colonial Sign Co., of Akron, Ohio, have consolidated. The capital stock of the new company has been increased \$50,000.00. H. B. Camp has been elected president.

Cook & Chester have located an extensive marble and monument business in the Acme building on Main Street, Elkhart, Ind. This firm has a contract for the largest monument ever erected in Elkhart. It will weigh 28,000 pounds.

J. M. Burton, of Louisville, Ky., interested in marble lands in North Carolina, near Asheville, says that he will organize a company in Louisville for the purpose of developing some North Carolina marble quarries, if his investigation will warrant the undertaking.

The Aberdeen Granite Co., Aberdeen, S. D., is receiving fine monumental stone from their quarries by the car load. They are getting out large quantities of curbing and other stone. The quarries of this company are located at Ortonville and are in charge of Mr. Frank Brown, who is an experienced quarryman.

Mr. Page M. Baker is at the head of a movement in New Orleans, La., to erect a monument to the memory of Mrs. Martha R. Field, who was famous in the field of journalism for the uplifting of womanhood to a higher plane of usefulness and dignity, and known the world over by her *non de pume* of "Catherine Cole."

The New York Monument Commission has been appointed by the legislature to arrange for a suitable memorial tablet over the graves of the sons of that State who fell in the war of the rebellion. The party is headed by Major Zabriskie, and composed of members of the Grand Army of the Republic and of the National Guard.

The Bowdoin Club, of Boston, Mass., proposes erecting a monument to Nathaniel Hawthorne on the campus of Bowdoin College, Brunswick, Me. Subscriptions payable when the sum of \$15,000.00 have been pledged, are being circulated. Professor Alfred E. Burton, president of the Massachusetts Institute of Technology, is chairman of the fund committee.

Phelan Bros., John and Ferdinand, who have been in the marble and granite monument business in Calais, Me., for the last twelve years, as you probably know, have a nice shop where they are, but expect to move next year into a new shop where they will have better facilities. They report a very good strong business and summer prospects good.

George C. Underhill, of Rutland, Vt., has purchased of Millard Bros., at Denby, a large tract of land containing valuable marble deposits. Operations will soon be begun to open quarries, but the plans as yet are somewhat immature. Norcross Bros., Potter, McDevitt & O'Brien and John Collins are successfully operating quarries in the same vein of white marble and on properties adjacent to Mr. Underhill's new acquisition.

D. M. Jones, of Columbus, Kansas, says: "In the way of news, I have installed a pneumatic plant in the last year and want to say to any one who contemplates putting in a plant that my advice is to never start with less than ten h. p. gasoline engine to run three hammers and a polisher. I had trouble from the start, but when I put in a ten h. p. engine, everything run as slick as lard, and it takes less gasoline to do the work than it did with the small engine. I am well pleased with my outfit, and would not like to do without it."

Lime.

The National Lime Manufacturers' Association.

Meets Semi-Annually.

CHAS. WARNER President.
Chas. Warner Co., Wilmington, Del.
PETER MARTIN First Vice President.
Western Lime Co., Huntington, Ind.
O. F. PERRY Second Vice President.
Rockland-Rockport Lime Co., New York City.
W. B. HILL Third Vice President.
Ash Grove Lime Association, Kansas City, Mo.
C. W. S. COBB Treasurer.
Glenco Lime & Cement Co., St. Louis, Mo.
E. H. DEFEBAGH Secretary.
Rock Products, Louisville, Ky.

Official Organ, ROCK PRODUCTS.

Meetings of the National Lime Manufacturer's Association.

HYDRATED LIME MEETING.

The hydrated lime manufacturers are asked to meet at the Hotel Cadillac in Detroit at 2 p. m., Monday, July 11. This will precede the National Lime Association meeting.

Among the matters of special interest are the question of bags and other special lines which will place the business on a uniform basis. President Warner, of the National Lime Association, will be on hand and take an active part in the discussion.

THE NATIONAL LIME MEETING.

On the morning of July 12, at the Hotel Cadillac in Detroit, it is expected that every man who is interested in up-to-date methods in the manufacture of lime will be on hand. The most successful association in the rock products lines, organized less than a year and a half ago, will hold its third business meeting at this time. Those who attended the last two sessions can readily testify to the benefits of the organization so far. However, there is need for more active members to join the body, and those who are listed among the members should be on hand.

Detroit is a pleasant city in which to enjoy a little vacation, and you can at the same time meet the up-to-date men in the business and talk enough shop to keep you in good trim, and still, with splendid boats running on the Detroit River and great inland steam ships running to Buffalo and Chicago, you have a fine opportunity to add to your trip and have a good time.

The business program will embrace several good papers by active men in the business, and the "Question Box" will be a new feature of the meeting. President Warner has taken great pains to make this meeting a success and you should do your part to aid him. In an organization numbering perhaps a hundred, there should be ninety lime men present and each one is supposed to bring his wife and family with him.

It would be just as well to arrange for quarters at the Cadillac Hotel which is one of the best in the country. Those who desire to attend the World's Fair en route will find low rates in force and we trust you will all be on hand.

S. W. Barrick & Sons, Woodsboro, Md., say: "We have found the lime trade rather dull during our spring run as compared with the same months of 1902 and 1903. The summer trade has not opened up yet, so we have no idea as to what prospects there are for the sale of lime for agricultural purposes."

The Superior Lime Co., Petoskey, Mich., is having a railroad switch laid from the main line of the Pere Marquette Railroad Co. to their lime kilns on the lake shore.

Cementing Material.

A recently patented process for treating lime under patent specifications No. 757,883 will no doubt prove of interest to parties engaged in the manufacture of lime, cement or mortar. The patentee, Thomas W. Cappon, analytical and technical chemist, 881 E. 141st Street, New York City, gives the following information:

The limes principally treated are the so-called 'poorer' or dolomite limes, namely those containing magnesia as well as calcium oxide. 'Fat' or rich limes, can be treated also by adding to them a certain proportion of dolomite lime and applying the process in question. The result is a surprising increase in the strength and binding power of the lime treated, and an increase in its 'setting' power, whereby the presence of the expensive ingredient gypsum in 'dry mortar' manufacture is practically dispensed with. Such a result would naturally tend to put this class of manufacture more fully within the hands of the lime manufacturer than it has heretofore been, while cheapening the cost of manufacture. It would also enhance the value of many limestone properties at present unduly depreciated.

Lime which has undergone the new process may be used for many purposes besides cement and mortar-making—in fact, wherever a strong cheap binding material is required, as in artificial fuel. In the manufacture of "dry mortar" or wall plaster its power of cementing sand is from four to five times that of ordinary lime. It yields a very strong building mortar with far greater resistance to water and weather.

Briquettes have been kept for months under water without showing signs of disintegration when ordinary sand and lime mortar would fall to powder.

The various grades of "scratch," "Browning," etc., are more cheaply produced, and thus the effect of modern conditions and close competition are offset. No change in factory plant is required.

The chief technical feature in the process is a slight change effected in one of the chemical constituents of dolomite lime, whereby a basic compound, technically called oxychloride of magnesia, is produced, the latter forms one of the strongest cements known, hence the singular tenacity of the new material. Calcium oxide plays an important role in the hardening of the cement—the chemical changes involved are, in fact, rather intricate, too much so for description in a general notice of this sort, but the process of manufacture itself is quite a simple one, the additional in comparatively small amount of a substance which is both cheap and abundant, being all that is needed. The technical details in full may be found in the patent specifications as referred to above.

The American Lime and Stone Co. are erecting several new kilns at Pamberton, Pa.

Mr. Noah Schultz, Templeton, Wis., superintendent of the Templeton Lime Co., has a crew of men busy at work burning lime.

Charles Maxiner, Gouverneur, N. Y., has started his lime kilns burning day and night. Upwards of 100 bushels of lime is burned out daily.

The Potomac Lime and Stone Co. have acquired the plant formerly operated by the O. J. Keller Lime Co., and located at Kellers, west of Brunswick, Md. The new owners will begin the operation of the plant at once.

J. M. Meffert, of the Ocala Lime Co., Ocala, Fla., under date of May 16, says, "Our lime business is good. We are running the plant full capacity and full time, and find the demand equal to the supply. Rock Products has become a fixture in our office, and we look for it regularly."

The Coble Lime Co., Delphi, Ind., have purchased the right of way for the laying of a railroad switch to their plant which is running at full capacity. This energetic concern has built up a business that will equal their complete output for the remainder of the season.

Mr. J. H. Bartman, of the Ash Grove White Lime Association, of Ash Grove, Mo., says: "I expect to be at Detroit for the National meeting. Only my poor health last winter prevented my being at Pittsburg. We have had a fair business this spring, although our April trade, for some reason or other, shows quite a falling off, probably the inclement weather is responsible."

Editorial Chat.

A Sandstone Postoffice.

We had a very pleasant visit the other day from Mr. C. W. McCormack, of the Cleveland Stone Co., Cleveland, Ohio. Mr. McCormack had just returned from Washington, where he had been making a fight for sandstone, and in fact, he was in a happy frame of mind generally, after Secretary Shaw, of the Treasury Department, had sided with the sandstone men and authorized the use of sandstone in the new post-office building, which is to be part of a group of public buildings at Cleveland.

The Cleveland post-office will take two hundred thousand feet of sandstone, and when the court house and city hall are completed, it will take a million feet of stone. While Cleveland is a very busy city and the sandstone quarries in its suburbs are one of Ohio's largest industries, our old friends, the granite men, made such a hard fight it was practically a show-down for several weeks which stone would get the job, but the sandstone men finally won. Why shouldn't they? It is right in their own backwoods. They had the post-office to look at, built in 1856; it is just as perfect as it ever was. Naturally it has darkened in color, but any stone will get that way after long service, especially in a city where there is as much smoke as there is in Cleveland. The objectionable feature of the proposition brought up by Mr. McCormack was that the hardest fight came from local men who were not competent to judge the high quality of the stone. The stone gotten out by the Cleveland Stone Co. is 98 per cent. silica, uniform in texture, and an illustration of its quality, 75 per cent of the grindstones used in the United States comes from these quarries. Speaking of their own gray quarry, they say it is the largest in the world.

Association Among Quarrymen.

Mr. McCormack also had something to say regarding association matters: "I have ever been an advocate of association among the quarrymen. However, all must attain that honesty of purpose and eliminate distrust, and then good can come from it. There is a greater need to-day for associated efforts in the stone line than ever before."

"The nucleus of these organizations should be one for crushed stone and one for building stone lines, and local organizations should be formed in the principal sections to discuss the price question. Of course the national organization should treat largely of educational matters and bring the quarrymen of all sections in closer touch, that they may co-operate for a general increase of the sales of stone and work in harmony, rather than promoting the present regime of everybody for himself and the consumer collecting the toll."

"Another necessity for organization is that some representative quarrymen should take a stand and let the smaller operators understand it as a matter of integrity, that oftentimes you have to give up something you are not entitled to, but do it and let the other fellow feel that you are not after his persimmons. With broadened ideas, there is no reason why the stone men should not work in harmony and improve the conditions of the business. When operators are working together, it is very much easier to get a fair price for a job and at the same time give the man the quantity and quality he desires, and this will insure greater prosperity in the business."

Smoke and Business.

If you look at some of the big cities and notice how dark the stone buildings have become, you don't need to wonder, because "where there's smoke there's fire." Of course it looks very nice when you can see beautiful buildings showing the colors the same as when they were put up, but if we don't have this smoke lots of us would have to do without our daily bread. You can complain about the "smoke nuisance" all you want to, but let's have more smoke and more money, and all will be happy.

Nor long since, in visiting the stone yards of John Deibold & Sons, I met the senior member of this firm, Mr. John Deibold, who claims each time we see him that he is about to give up his job and let the boys run the business, but we notice that he is still quite active, and you must know there is something doing, for they are about to put up a steel shed 145 by 50, and are purchasing a new traveling crane. They will practically have a shed covering all their ground. They report things moving along very nicely, are putting up the Carnegie Library at New Albany, Ind., and have a number of other jobs on hand and considerable work in sight.

When in St. Louis recently, we had a talk with Mr. W. O. Pratt, connected with the business of D. W. Pratt Co., of St. Louis. We were told they had an excellent exhibit in Machinery Hall, Block 33; that business is fairly good with them, and they recently shipped to the Minnedian Marble Co. a carload of quarry machinery, including drills, tripod, derricks, hoisting engines, etc.

This company will have an excellent marble quarry which is being opened up at Torbitt, Tex., under the superintendency of Mr. John H. McCarthy, formerly of St. Louis.

Speaking about drills, Mr. Pratt said: "The Pratt drill has only been out a few months, and yet there are nine of these drills working at the quarry of John Scott & Sons and the Walsh Construction Co., in St. Louis, Mo."

This company also handles gasoline engines, and recently sold a 150 h. p. direct connecting gas engine at St. Louis.

Mr. W. O. Pratt is the junior member of this firm and an active, hustling salesman. Col. D. W. was out having his picture taken while we were taking a peep into his office. I do not like to give the particulars for fear you would accuse the Colonel of getting young again.

We had a visit not long since from Mr. V. R. Harris, of Tennessee. Mr. Harris has been making lime for 10, these many years, and says that the only trouble with the Southland is that there is a lack of organization. The idea of furnishing a barrel of lime for 50c with the coöperation thrown in, when the coöperation is worth over half the price. Many dealers who handle lime would prefer to pay a little more if the lime manufacturers would only work together and were satisfied to get a little more profit. Mr. Harris says:

"We have had some pleasant times at the meeting of the local Southern associations in times past, but in this day and generation, unless you can get thorough co-operation, I do not believe in attending the meetings."

"There have been some funny fellows in the lime business in times past; some of them preferring to pay a negro five dollars a month and then play poker with him and get the money back after he had worked all month. We believe in insisting on the negro's doing a good honest day's work and paying him for it. If we find men around the place who don't do their part we get rid of them."

"We find, however, that labor is scarce in the South. Emigration will have to be thrown our way or the manufacturers in the future will have to close."

The Woodbury Granite Co., of Hardwick, Vt., recently had quite an experience with their men. The men at Hardwick struck because their foreman insisted on the fact that the employer had some rights. The company shipped the Hardwick foreman to Bethel and transferred the Bethel foreman to Hardwick, whereupon the men at Bethel struck against the foreman. The matter was brought up before the National Granite Cutters' Union, and Secretary Duncan, of that organization, decided that the employees of the granite company had no jurisdiction in the matter and that the employers were correct.

The American Lime Co., Spring City, Tenn., recently organized by C. E. Angel and E. B. Ewing, enterprising local capitalists, have got their first kiln in operation which has been running for two months at full capacity. They will in a short time build several additional kilns. The kilns this company will build from time to time will combine the best known appliances for handling and turning out a superior quality of lime. The limestone material with which they are operating has proven to be a very high grade and quality and it is very easily handled.

Roofing.

Great Meeting in August.

In an interview recently with Mr. J. B. Ohligschlager, of the National Association of Master Composition Roofers, he spoke of the organization which is now composed of the largest operators in composition roofing in the United States, with Mr. E. S. Bartel, of Philadelphia, president; Mr. J. W. Moore, of Providence, R. I., as vice president, and Mr. Wm. K. Thomas, of Chicago, as secretary-treasurer. The next meeting of this association which will be on August 24 and 25, will be at the American Hotel, in the World's Fair City, St. Louis.

Mr. Ohligschlager states that there are fully a thousand manufacturers located in the different States who should be members of this association, and it is the hope of the officers and of the membership to broaden the lines of business and secure the co-operation of all roofing manufacturers on the grounds of merit of the roofing business, believing that the best minds in the trade have given a brand of felt paper, which is manufactured in such a way as to be a firm foundation to the roof and insure the composition roofing lasting, and this is to put it on its proper basis in the business.

Mr. Ohligschlager is president of the National Roofing Supply Co., 140 West Main Street, this city, which is one of the best known concerns in the South.

They also have an organization known as the National Concrete Construction Co., which is doing a large business. This company recently finished a new filter basin for the Water Co. in this city, and for a year or more have been putting in the concrete foundations for the new L. & N. railroad shops, employing a hundred or more men in this work.

THE SITUATION.

CHICAGO, May 28.—The total number of buildings erected in Chicago during the last fourteen years, up to November 1, 1894, make grand total 103,253, costing the large sum of \$308,532,903.00. It was in the building of these structures the Chicago roofers were active participants, and agents of no mean importance too. Nor was there such a great army of them either as one at first thought might be led to suppose, for the census of 1900 records in volume 2, only a few over 10,000 roofers and slaters in the entire area of the United States. If this be a fact the practical men who direct this trade ought to be able to unite in a body and form a combination that would certainly become a very strong one.

Chicago is not over-crowded with men who are thoroughly practical roofers. A great deal of the work done by roofers can be done by men who are not thoroughly skilled in the trade. As a general thing the practical roofers—the laymen—are generally fully employed during the time when roof-building can be done to the best advantage. Spring, summer and fall are the seasons when the most activity prevails, and that is the case here at this time. Both centrally and in the suburbs there is a large amount of building going forward, and the roof men are busy, although the amount of building is considerably behind that of last season and for some little time previous. The roofing business in this city has undergone many changes within the last two or three decades. Some of the old firms so long and familiarly known in former years have passed out of existence, either by a dissolution of the firms or a dissolution of the individual members of the firms. Those who have been in the business now for the longest period say there is no money in it; that expenses, high price of materials and advancing cost of labor eat up pretty much all the profits of the business.

Improved Methods and Materials.

Roof building can only be done in one way to be thoroughly efficient; it must follow strict mathematical rules.

Wonderful improvements have been made within the last decade or two in roofing. The old, old ways have long since gone out of use and are now almost obsolete. New methods and new materials, as well as new ways of making roofs absolutely impervious to water and almost proof against destruction by fire are in the foreground now, and large sums of money are annually saved to the house-holders by employing the best roofers to protect the building from so many disintegrating substances as float in the air in large cities.

A Few Firms Control the Trade.

The business of roofing here is controlled in the main by less than a dozen firms; in fact, there are about half a dozen firms who practically control all the most important contracts in this line. Most of the firms have their own special roofing material, be that what it may, but each one naturally claims his methods and materials are the only ones that are thoroughly practical and the most enduring.

The Illinois Roofing and Cornice Co., 14 North State Street, E. N. Biegler, manager, is one of the best known firms in the business. The president of this company is John F. Sharpless. This is probably the only Chicago firm that attends to all kinds of roofing—covering roofing in all its branches, whether felt, gravel, composition, tin, slate, tile and iron roofing, metal cornices, galvanized iron, etc. Mr. Biegler is a thoroughly practical man, and knows his business in the most thorough manner. He reports the firm has enough work on hand to keep its employees busy, and anticipates an improvement in business a little later in the season. There is no line of roofing this firm will not undertake to do, and give ample guarantees that it will give satisfaction.

Wm. Murdock & Co., established in 1880, are at 167 Dearborn Street, and make a specialty of gravel roofing.

The Standard Roofing Co., 290-94 N. Halsted Street, make a specialty of asphalt and gravel roofing. This concern has a large clientage, and is at this time fairly busy.

The Ford Roofing Co. (L. E. Bussiere & Co. successors) is an old established firm and has been foremost as leaders in the roofing line for a good many years. Business reported to be fairly good. Gravel roofing is a specialty.

The American Tile and Gravel Roofing Co., rooms 223, 132 La Salle Street, make a specialty of gravel roofing, and report business fair.

H. R. Shaffer & Co., suite 301, 145 La Salle Street, is one of the oldest and best known firms in the roofing business in this city. The house was established in 1867, and as gravel roofers of the first class, has been very successful in business.

Some of the roofing men will attend the July meeting of the National Association at St. Louis, intending to kill two birds at the same time by taking in the Fair.

Enlarging Capacity.

An immense addition has been built to the plant of The Berger Manufacturing Co., at Canton, Ohio. This new department will be devoted exclusively to the production of steel office furniture, on a large scale.

The steel age is growing upon architects and builders, and they are recognizing more and more each day the value of steel in constructional work. It is indestructible and unaffected by elemental action and therefore permanent and durable.

The various other departments of this concern, metal ceiling, roofing, siding, etc., are enjoying the large trade which they have always experienced at this season and the operatives are steadily employed. The products of this company, the largest sheet metal works in the world, are distributed all over the globe.

How to Preserve Old Gravel Roofs.

When gravel roofs have been on for a number of years and begin leaking, have them examined by an experienced and responsible roofer, who, if necessary, will advise you to recoat the entire roof, which can be done at about one-half the expense of putting on a new one, for repairing and patching around on the roof is a bad practice and does not make the entire roof equal. Gravel roofs have been made to last for twenty years at less cost and trouble than by patching around on them in spots.

The Mastis Roofing Co., Alma, Mich., are about ready to begin the erection of their new plant, in order to commence operations as early this season as possible.

The Chattanooga Roofing and Foundry Co., Chattanooga, Tenn., one of the large manufacturing concerns of the city, are turning out large quantities of roofing at their plant.

The West Coast Roofing Co., Waukegon, Ill., have begun on the additions to their plant which will double the present capacity, adding 7,000 feet of floor space to it. One building will be 60x80 ft. and the smaller one will be 30x70 ft.

Charles Connor & Co., of this city, jobbers in roofing material of all kinds, report a fair business, and that business shows quite an improvement over last year. They do a large jobbing business and have a four-story building. They handle paper, felt, steel and galvanized roofing.

One of the active young men in the roofing business is C. A. Monks, president of the National Roofing and Paving Co., of Louisville. Mr. Monks' active partner at this business is Mr. Harding Collins, secretary and treasurer of the company. They do a large local business, partly contract work, but do a jobbing business as well. They are putting in the fireproof construction of several large buildings in Louisville, and can hardly take care of their numerous orders for roofing and construction work.

They are now building a new warehouse 75 by 65 feet, and have a main warehouse of three stories and basement on Main Street. Mr. Monks organized this company about four years ago and it has the reputation of carrying the largest stock for the contract business in the South, and among their concrete jobs at this time is the fireproofing of the Jewish Hospital and a new storage warehouse. They report their roofing business most excellent. Mr. Monks' able assistant in the construction department is Mr. C. S. Hall.

ASPHALT.

At a meeting of the stockholders of the Asphalt Co. of America, held in Chicago, Ill., recently the retiring board of directors were re-elected.

The National Asphalt Co., Washington, D. C., has been incorporated with a capital stock of \$1,000,000.00, by the following incorporators: John R. Lang, Jr., E. W. Ostrom and Owen H. Fowler.

Superintendent Larson, of Rockford, Ill., has a preparation composed of rubble, tar and pitch, which is being used for repairing of the asphalt streets of that city. The places repaired continue to hold their own and seem to be a success.

The Colonial Asphalt Co., Plainfield, N. J., has been incorporated with a capital stock of \$500,000.00 to deal in asphalt and cement. The incorporators are: Robert L. Kelly, Pierre, S. D.; Aaron D. Thompson, Plainfield, N. J., and E. Frank Vall, Plainfield, N. J.

The action in bankruptcy against the Central Asphalt and Refining Co., Port Neches, Texas, has been dismissed and it is said that the operations of the plant for oil refining and asphaltum making will shortly be resumed. The plant has been closed down for about nine months.

The first annual report of the General Asphalt Co., the reorganized asphalt trust, shows profits for thirteen months of \$850,435.00, or at the rate of \$785,016.00 for a year. Under the terms of the re-organization plan the \$14,000,000.00 of preferred stock will be entitled to the cumulative 5 per cent. dividend after May, 1905. The combined balance sheet shows current liabilities of \$1,642,357.00 and current assets of \$5,255,505.00.

One of the most singular lakes in the world is the celebrated pitch lake of the Island of Trinidad, which was discovered by Sir Walter Raleigh in 1595 on his way to the mouth of the Orinoco River. This lake spreads over an area of 99 acres and its surface is composed of one floating mass of asphalt, seamed with veins of clear water. From it, and a similar lake located in Venezuela, the world's supply of asphalt is drawn. The workmen go out on the surface of this lake and get great slabs of asphalt which are carried away, and the next day the hole that was made has filled up with pitch so that the supply is inexhaustible, and the enormous quantities which have been removed make no perceptible falling in the level of the lake.

Slate.

The Lowell Slate Co.

NORTH BLANCHARD, ME., May 25.—The quarries and mills of the Blanchard Slate and Mining Co., now being operated under lease to the Lowell Slate Co., J. L. Douglas as president. Mr. Douglas has proved to be the right man, and by his tireless energy and extensive knowledge of slate men the output of the quarry has been increased greatly since he took charge. In spite of the severity of the winter and the difficulties of the labor question, the figures have been running from 5,000 to 8,000 ft. of mill stock and 200 squares of roofing per month.

Now that these and other natural obstacles to the development of a great slate property have been removed, preparations are being made to extend the large pit—open a second quarry this month and a third about the middle of summer.

Good labor is now available and with the new machinery which has been ordered and we expect to be here shortly, Mr. Douglas hopes to catch up with his orders.

The longer Mr. Douglas operates the Blanchard quarry the better he likes the quality of slate.

He is now taking out unusually large slabs of mill stock free from iron, and has calls for his product throughout New England. He is also filling Government contracts for roofing.

He believes that by improved machinery he can double the profits, and what is more, it will be tried in the near future.

They have recently taken out slate 15x18 ft. and 14 to 18 inches thick.

The Vermont Slate Co. (Western Branch), Zanesville, Ohio, in referring to the item published in last month's *Rock Products*, desire us to state that Mr. S. Mills, Jr., is not a member of that concern. John G. Williams is president; H. F. Rohrman, vice president and treasurer, and F. B. Torbet, is secretary of the concern, who besides manufacturing and exporting the Superior sea green roofing slate, are the sole manufacturers of the celebrated Vermont safety oil can, an ingenious and useful article which has very recently been patented.

The New York Consolidated Slate Co., Poultney, Vt., have been organized under the laws of the State of Maine with a capital stock of \$100,000.00. The company has leased, with the privilege of buying, all of the Farnam farm, as well as the Jones and Ellis property, in all about 200 rods north and south of the best unfading green and unfading moth green slate, and erected two cable sticks 120 feet high, one rope 1,000 feet and another 925 feet, 1,000 feet of $\frac{3}{8}$ -inch galvanized rope, 5,500 feet of hoisting rope, all from J. E. Roebling, also an 80 h. p. boiler and two pumps from New York, a three drum hoisting engine from the Lidgerwood Manufacturing Co., and a Sullivan Machinery Co.'s steam drill and quarry car. They also have put in two Hooker Bros. elevator carriers and four rope carriers, and four of their swing swivel wheels. The company is at the present time ready to manufacture roofing slate and mill stock. The officers of the company are: Edward J. Stanley, president; Robert E. Cushman, vice president, both of New York City; H. L. Sherman, secretary and treasurer, Moses J. Jones, superintendent, both of Poultney, Vt., and William M. Malett, Irving W. Wagner and Thomas T. Evans.

The Morris Slate Co., of Rutland, Vt., has just opened up a new vein of fine slate on its property in South Poultney, Vt. Charles Morris, superintendent of the company, states that this is one of the best quarries he has ever seen. John P. Mullen, of Poultney, Vt., has the contract for setting up the large quarrying plant consisting of boilers, hoisters, engines and other apparatus.

R. P. Roberts, as manager, has opened the Non-such slate quarry at Fair Haven, Vt.

A company composed of O. J. Jones, president; E. H. Steinmetz, vice president; Harry Repsher, secretary; Edward Repsher, treasurer, and Jacob Friedman has been organized at Bangor, Pa., to be known as the South Bangor Slate Co. A tract of land at Nazareth Junction has been purchased, and the work of stripping has begun. The company expects to be getting out slate early in July.



In the Palace of Mines and Metallurgy, St. Louis, Mo.

The Mena Slate Co., Mena, Ark., has been organized by local capitalists. The officers are: C. C. Palmer, president; H. L. Sprague, secretary; H. Hollarm, treasurer.

Howard Daum, the slate blackboard manufacturer, has leased the factory and properties formerly under control of the Consolidated Lehigh Slate Co., at Slatesdale, Pa. He will quarry and start the factory at once.

The Eureka Slate Co., Placerville, Cal., is preparing to ship several carloads of roofing slate to Fort Flagler in the State of Washington. The slate will be used in the construction of new buildings that the Government is building at that place.



Quarry of Blanchard Slate Mining Co., N. Blanchard, Me.

At a meeting held recently at Granville, Vt., by the owners of the sea green slate quarries, located at Pawlet, Granville and Poultney it was decided to shut down all quarries in the towns mentioned, for a few weeks, as there are 76,000 squares of unsold roofing slate now on hand.

The Northfield (Vt.) Quarry, of the Vermont Black Slate Co., is being pumped out to begin operations.

John Hughes, W. W. Thomas, Samuel Parry and Morris J. Roberts have formed a company at West Pawlet, Vt., and are starting to open a slate quarry on the McFadden properties.

NORTH WALES.

Account of New Quarrying Methods Now Being Introduced.

BY H. HUMPHRIS,

Member North England Institute Mining & Mechanical Engineers.

Member South Wales Institute Engineers.

It is the intention in this article to give a short account of the methods and different systems employed in quarrying and mining slate rock, and more particularly to describe the methods employed at the Rhiwbach Quarry, and a new system that is now being introduced.

In order to make matters more clear this article will be divided into different heads, and will be dealt with as follows:

- (1) A few remarks on the quarry itself.
- (2) Description of the mode of working, and
- (3) Comparison between the new and old systems of extracting the rock.

Exact Location of Quarry.

The quarry in question which is known as the "Rhiwbach" Quarry, is situated on the border of the counties of Merionethshire and Carnarvonshire, three and a half miles from the town of Blaenau Ffestiniog, which is world renowned for its slate quarries and the quality and excellence of the slates produced.

The approach to the quarry from Blaenau Ffestiniog, commences at the terminus of the Ffestiniog railway, a narrow gauge line (1.11½ gauge) connecting Blaenau Ffestiniog with Portmadoc (from where the majority of the slates produced in the district are shipped), and consist of a series of three inclines, which unitedly reach an altitude of 1,560 feet, being 360 above Blaenau Ffestiniog. The length of these three inclines with the approaches thereto is about 1½ miles, and from the topmost of them a narrow gauge line runs to the quarry a further couple of miles.

Each incline consists of a couple of roads, and are self acting, the loaded wagons coming down pulling the empty wagons (coal, goods, etc.) up, the whole being controlled by a brake affixed to the drum.

The line leading from the top of the inclines to the quarry is on a gradient averaging from 1 in 60, to about 1 in 200, in favor of the load, consequently the loaded slate wagons gravitate to the inclines, the empty wagons only requiring haulage. At the quarry end of the line there is another incline going down to the surface works of the quarry.

The Rhiwbach Quarry has been continuously worked since the year 1812, but not at any time on a very large or extensive scale.

The principal vein of slate is that known locally as the "New" Vein, which at this place runs to an average thickness of 100 feet.

Size and Extent of the Operations.

The area of the quarry is 299 acres and the total amount of slate rock on the property as proved by workings and borings, is about 75,000,000 tons, of which 50,000,000 tons is rock worth working, and about 25,000,000 tons is rock of an inferior quality, or the veins are too thin and not worth working, except in a few exceptional cases.

The system of working in force at the older workings is partly open quarrying and underground mining. The rock is obtained by blasting, and then sent up to the dressing sheds, where it is split into convenient sized blocks, sawn up and then split and finally dressed to whatever size of slate it will make.

The surface works are very compact. At the quarry all inclines are so arranged that one engine has control of the whole, thus dispensing with the necessity of having engines and boilers in different parts of the quarry. Again at the engine house, situated at the foot of the incline leading to the railway, things have been so arranged that the engine there winds on three inclines, two of which are 200 yards or more from the engine house, and all running in different directions.

Steam is also generated by a Babcock & Wilcox water tube boiler which was erected last year to take the place of four other boilers, with a view to economy in coal consumption. An air compressor is also in operation for working the rock drills, and compressed air is carried to different parts of the workings in about 3½ miles of tubing.

(To be Continued.)

Cement.

AT ATLANTIC CITY.

June Meeting of the American Association of Portland Cement Manufacturers.

PHILADELPHIA, Pa., May 27.—The June meeting of the American Association of Portland Cement Manufacturers will be held at Atlantic City, June 14 and 15, the plan to meet on a steamer having been abandoned. The new arrangement was found to be more satisfactory to a majority of the members. Hotel Brighton will be headquarters, and through the kindness of Mr. Turner, the convention hall of the steel pier will be at the disposal of the association.

Assistant Secretary Barlow says the indications are that the meeting will be largely attended, and it is expected to be one of the most interesting ever held. There will be various experiments and tests of material. A number of papers will be read, but the complete program is not yet announced. Mr. Clifford Richardson will read a paper on the manufacture of cement, illustrated by magic lantern and microscopic views. Besides the purely technical discussion attention will be given to the trade conditions and some important matters will doubtless be considered and disposed of.

The September meeting of the association will be held in the Cement Building at the Louisiana Purchase Exposition, September 12 to 17.

The monthly statement of the importations and exportations of Portland cement herewith presented, shows that imports continue to decline, while exports are gradually increasing. This statement is the low record for imports for years, indicating that the foreign business in this country is practically dead. We have developed the industry to such an extent that it seems to be a question of only a very short time when a barrel of imported cement will be a rare curiosity. While we have not yet developed a foreign trade of any consequence for the American product, the increase in exports shows that the American producer is beginning to reach out for the foreign market. With development in Cuba, Mexico, Central and South America, the export trade is bound to grow.

Blast Furnace Slag and Portland Cement.

M. Gary, of King's Technical Experiment Station in Germany, has found out that the strength of mixtures of blast furnace slag with a binding agent decreases rapidly if the mixture is preserved for some time. This is more noticeable on the crushing strength than it is on the tensile strength. The effect is greater in the case of mixtures containing Portland cement than those containing lime.

Another Fireproofing Test.

W. P. D. Morse, treasurer of the Chickamauga Cement Co., Chattanooga, Tenn., writes: "We beg to advise that we were greatly interested in the report of tests of fireproofing with Louisville cement, in your issue of Rock Products this month. In fact, the writer was so greatly interested that he made some tests of his own, the mention of which may not be out of place. But little difference was made in the mixtures, excepting Dixie Rock cement, made by this company was employed instead of Louisville, and the cubes were subjected to a heat of about 2,200 degrees for five hours, after which the cubes were drawn from the furnace and plunged into water. The Portland cubes were all destroyed in the fire, only a fragment of one of them, made with clinders, being obtained. All of these made with the Dixie cement, both with limestone and clinders, remained intact, the limestone ones disintegrating, or sloughing off only a little after being immersed in water. We account for the latter phenomenon for the reason

that stone screenings were used, running from the size of a grain of wheat to a grain of corn, instead of larger stone, and the heat has been so intense that almost perfect fusion had resulted with the sand, cement and stone; not sufficient, however, to allow the concrete to give way. The cubes made with Dixie cement, sand and clinders even to the edges of the cubes, remained intact, and very hard. These cubes were on exhibition in the Manufacturers Building, during the Chattanooga Spring Festival, just ended; where they were the occasion of much favorable comment."

Cement Business Thriving in Cuba.

HAVANA, CUBA, April 21.—Large quantities of cement are used annually on the island for the majority of the houses are built of a composition of stone and cement, very few frame buildings being seen except in some of the smaller country towns.

The largest cement handlers in the city are Messrs. C. B. Stevens & Co., of Lamparilla 11, Havana. Mr. Stephens handles the product of the Atlas Cement Co., of Easton, Pa., and the Lehigh Cement Co., of Pennsylvania.

There are something like 150,000 barrels of cement used here a year, of which amount Messrs. Stevens & Co. handle 60,000 barrels.

A local factory at Chorera owned by a French concern named Societe Anonyme de Cemente de Almendares, manufactures a second grade article, but which they have a good sale for on account of its coming a little cheaper in price. The cement of this factory sells for about \$2.50 to \$2.60 a barrel, while the imported cements come a little higher at about \$2.70 to \$2.75. The duties into this country on cement are about 68 cents, with, however, a 20 per cent. reduction under the new reciprocity treaty.

There will likely be large quantities of cement used very shortly in the foundations for new machinery and plants for the sugar estates, who are all getting their properties back into repair, and

the present rise in the value of sugar has added an impetus to those owners who were in doubt as to the results. Most of this demand however will be supplied by the Havana factory. Mr. Steinhart, who represents Stevens & Co. on the island, reports good business and demand active, his annual sales he quotes as \$100,000.00 for this one firm alone.

There is considerable cement imported also from European markets, Germany, France and England, but most of this business is done by some of the smaller Cuban and Spanish dealers in the city.

Some of the largest American concerns who have been building here, notably the American Tobacco Co., and its several branches, and which concern lately erected a large five-story building covering a block, imported all of their cement direct from the Atlas Cement Co., several thousand barrels alone being used in the erection of this one building. This big trust has now under course of construction a large building which was recently burned down, and was occupied by one of their most extensive cigarette factories. Mr. Kadish, of Chicago, another enterprising American, is now erecting a Turkish bath establishment, with big natatorium and swimming tank, which will all consume a large quantity of cement in its construction. Mr. Kadish is building his swimming school at 67 Prado, the fashionable thoroughfare of Havana.

Senate Document No. 19, 58th Congress, first session, will be of interest to Portland cement people. It consists of two parts, "Materials and Manufacture of Portland Cement," by Edwin C. Eckel, of Washington, D. C., and "Portland Cement Materials of Central and Southern Alabama," by Eugene A. Smith. It is written in popular vein and contains analyses of a large number of limestones, which are made largely in the laboratories in the Alabama State University.

Imports of Portland, Roman and Other Hydraulic Cements

MONTH OF MARCH, 1903			9 MONTHS ENDING MARCH, 1903	
COUNTRY	BBLs. 380	VALUE	BBLs. 380	VALUE
United Kingdom.....	.....	\$ .....	104,657	\$ 129,925 00
Belgium.....	74,776	87,541 00	702,398	780,567 00
France.....	913	1,482 00	13,064	20,673 00
Germany.....	71,160	94,803 00	1,345,901	1,676,300 00
Other Europe.....	.....	.....	17,632	19,568 00
British N. America.....	85	162 00	3,015	6,543 00
Other Countries.....	.....	.....	3,751	5,880 00
Totals.....	146,934	\$183,988 00	2,190,418	\$2,639,156 00

EXPORTS.

March, 1903.....	15,590 barrels, value \$ 23,883 00
Nine months ending March, 1903.....	195,931 barrels, value 330,789 00

Imports of Portland, Roman and Other Hydraulic Cements.

MONTH OF MARCH, 1904			9 MONTHS ENDING MARCH, 1904	
COUNTRY	BBLs. 380	VALUE	BBLs. 380	VALUE
United Kingdom.....	9,558	\$11,935 00	115,543	\$ 139,635 00
Belgium.....	28,807	35,159 00	434,256	498,204 00
France.....	783	1,277 00	17,275	24,936 00
Germany.....	60,185	81,909 00	781,427	1,015,301 00
Other Europe.....	.....	.....	12,892	13,650 00
British N. America.....	.....	.....	2,343	4,162 00
Other Countries.....	5	12 00	8,592	13,275 00
Totals.....	99,338	\$130,292 00	1,372,328	\$1,709,163 00

EXPORTS.

March, 1904.....	18,578 barrels, value \$ 27,673 00
Nine months ending March, 1904.....	218,580 barrels, value 331,399 00

Imports decreased in March, 1904, as compared with March, 1903, 47,596 barrels, valued at \$53,696.00; and, for the nine months ending March, 1904, as compared with same nine months previous to March, 1903, 818,090 barrels, valued at \$929,993.00.

Exports increased in March, 1904, as compared with March, 1903, 2,988 barrels, valued at \$ 3,700.00; and for the nine months ending March 1904, as compared with the same nine months previous to March, 1903, 22,649 barrels valued at \$27,610.00.

The Portland Cement Mill is among the probabilities at Sellersburg, Ind., in the near future. W. E. Burke, of Louisville, Ky., has purchased several tracts of shale land for that purpose.

The Wisconsin Marl Co., Stevens Point, Wis., has been incorporated with a capital stock of \$50,000.00, for the purpose of developing the marl beds of Lima Lake, in the town of Amherst, from which they propose to manufacture Portland cement.

The Selma Portland Cement Co., Selma, Ala., have acquired something over 3,000 acres of valuable cement land, and now expect to begin the erection of a plant for the manufacture of cement at an early date. This company is said to be largely composed of Boston capitalists.

The Ohio and Kentucky Cement Co., Mentor, Ky., has been organized with a capital stock of \$1,500,000.00, and it is the intention to erect a large plant between the C. and O. tracks and the Ohio River in order that shipments may be made by water or rail. Cincinnati capitalists are backing the project.

The Phoenix Portland Cement Co., Nazareth, Pa., held a directors meeting at Philadelphia, Pa., recently and reorganized and elected the following officers: William Turner, Bethlehem, president; Wm. H. Parsons, Phoenixville, vice president, and Morris Pfaelzer, Philadelphia; G. W. Laub, treasurer, and John F. Hoffmeister, secretary.

The Pennsylvania Portland Cement Co., New Castle, Pa., largely composed of local capitalists, will very soon begin the erection of a \$1,000,000.00 cement plant. The capacity of the plant will be 1,500 barrels per day, and the company owns sufficient limestone land to supply the raw material for fifty years. Railroad connections are being put in.

The American Portland Cement Co., whose plant will be located at Neodesha, Kan., has been incorporated under the laws of New Jersey with a capital stock of \$1,500,000.00. The organization has been promoted by Mr. Robert Nesch, Kansas City, Mo. Contracts have been signed for the erection of the necessary buildings which will be actively pushed.

The Lancaster Portland Cement Co., Lancaster, Pa., recently chartered by the State, and which is composed of well known gentlemen in Lancaster city and county, will at once begin the erection of a large plant to manufacture Portland cement on the Eastern bank of Cocalico Creek in West Earl township. The incorporators are: J. Frank Keller, Israel G. Erb and Frank J. Reiber.

The Alpha cement mill at Martins Creek, Pa., has been shut down for repairs. A 1,500 h. p. engine will be substituted for a 1,100 h. p. one now in use. The changes and repairs will consume about two months. Cement rock at Baker's Bluff is said to be the purest found in the country, since no limestone is needed with it. Ten per cent. of gypsum is all that is required to prevent cement from setting too rapidly.

The Southern States Portland Cement Co., Atlanta, Ga., are operating their plant which is located at Rockmart, Ga., producing a high grade of Portland cement at the rate of 1,600 barrels per day. The success of the company, and the rapidly increasing popularity of its product, is largely due to the fact, that every branch of its business is under the supervision of men of experience in the Portland cement industry.

Charles Guy and George DeClute, Iola, Kan., are forming a company for the purpose of manufacturing cement burial caskets. Many tests have already been made to prove the lasting strength of the casket. It is handsome in appearance, and has the endorsement of a number of leading undertakers who have examined them. The caskets in question will have a steel frame, but the main body of the material is of a concrete substance.

Frank J. Otterholt, Akron, Ohio, has organized a company with a capital stock of 6,000,000.00, which is to be known as the Chanute Cement and Oil Co. It is organized under the laws of the State of Maine. The company expects to furnish a large portion of the cement for the building of the Panama canal. One of the largest plants in the country will be located near the gas and oil belt near Chanute, Kan., the output of which will be 4,000 barrels per day, and it is claimed that cement can be made at that place cheaper than anywhere else. The corporation also includes the Bronson Cement Co.'s plant at Bronson, Mich., largely owned by Akron parties. Capitalists of Ohio, Michigan, Minnesota and Missouri are interested in the deal.

Artificial Stone

Lewis Davis, Plymouth, Pa., has organized the Shawnee Artificial Stone Co.

The Pioneer Sand-Lime Brick Co., Seattle, Wash., has been capitalized at \$400,000.00.

Mr. Harry Evers has been elected secretary and treasurer of the Buffalo Litholite Co., Buffalo, N. Y.

The Lewes Cement Brick Co., of Lewes, Del., has been incorporated with a capital stock of \$60,000.00.

Mr. C. H. Carter, Peotone, Ill., has procured an outfit, and is preparing to go into the manufacture of artificial stone.

J. C. Summers, Pueblo, Colo., has been awarded an extensive cement contract in and about the Union depot in that city.

James Jessup, Salem, Ohio, has ordered the necessary machinery and will shortly engage in the manufacture of artificial stone blocks for building purposes.

The Indiana Concrete Co., of Evansville, Ind., has been organized at \$5,000.00. The directors are: Harvey B. Davidson, Rollin S. Viets and William A. Viets.

The new Smith & Grater Building Stone Factory, at Rock Falls, Ill., is doing good work. Their new concrete stone machinery is making blocks of various sizes and shapes.

D. M. Click, of Omaha, Neb., has leased ground at the end of J Street for the purpose of manufacturing concrete building material. He already has a number of orders for the material.

The Arkansas Granite Brick Co., Fort Smith, Ark., have started to manufacture sand-lime brick. Manager Rogers says he will not sell the first lot until he sees whether or not they are a success.

The Caen Stone Co., Los Angeles, Cal., has been incorporated with a capital stock of \$300,000.00. The directors are: F. L. Bake, Milo A. Baker, E. S. Hoyt, P. M. Gregg and H. C. Brandt, all of Los Angeles.

The Springfield Concrete Co. is commencing the manufacture of concrete blocks, employing a large force of hands. Several large contracts have already been secured and the firm has very flattering prospects.

Another concrete block has been patented by Robt. L. Underwood, of Fostoria, Ohio, contains little passage ways partially through the block which are designed to give interrupted or broken air passages.

R. S. Reese & Co., Reading, Pa., are enlarging their cement building block factory to double its present capacity. The firm is doing a large trade. A number of new houses are being built and the demand is increasing steadily.

The Sibley Cement Walk, Block and Tile Co., Sibley, Iowa, has been incorporated with a capital stock of \$10,000.00. They will manufacture cement blocks, tiling and perhaps brick, and will also take contracts for cement sidewalks.

The Buffalo Concrete Stone and Brick Co., Buffalo, N. Y., has been incorporated with a capital stock of \$40,000.00, to deal in artificial stone. A. C. Mathes, Chicago, Ill.; M. H. Percell and C. P. Barnwell, New York are the parties interested.

The American Cement Pressed Brick Co., at Cincinnati, Ohio, has been incorporated with a capital stock of \$100,000.00. Robert Whealey, Fremont Stevens, Stephen L. Moran, George T. King and William E. Young are the parties interested.

The Sibley Quarry Co., of Detroit, Mich., whose quarries are located at Trenton, are building a line of summer residences and cottages for their working people near the plant, on the bank of the Detroit River. The houses will be built of sand-lime brick with porches of the same material. The sand-lime brick are manufactured by the company at their works.

Ida Grove (Iowa) Concrete Stone Co. has a large force of men making hollow concrete blocks for the factory building 50x100 ft., which they are erecting. They will put in machinery to manufacture concrete building material on a large scale.

The Concrete Construction Co., Ashland, Wis., of which Mr. Thomas Edward is president, have begun the production of hollow cement building blocks with very flattering prospects. They are making a fine imitation of Lake Superior brown stone.

A company for the manufacture of hollow concrete blocks is being organized at Hutchison, Kan. The men who are behind the movement are: O. F. Davis, John Campbell, Otto Foeltzer, A. H. Foeltzer and Hugh McDonald, who know what they are about.

The Concrete Sidewalk Co., Chicago, Ill., has been incorporated with a capital stock of \$10,000.00, to manufacture cement sidewalks and material for cement construction. Burt Brown Barker, Chas. A. Pearson and C. L. Conder are the incorporators.

S. W. and E. E. Jackson, Fremont, Ohio, are meeting with great success in the manufacture of concrete building blocks. 16,000 of the blocks have been shipped to Gibsonburg to be used in the new post-office building. The firm report the receipt of many other orders.

J. C. Bowman and Frank Terry, of Findlay, Ohio, have gone into the manufacture of cement building blocks. They have a contract to erect a factory building out of their blocks 100x300 ft. in size for the Van, Kuren, Heck & Marvin Co., of this city, manufacturers of ditching machinery.

The building being erected for an artificial stone plant at Terre Haute, Ind., by August Standau, George Terhorst and Mark Myers will be completed and the plant installed in a short time. After the plant is finished and in good shape the owners will likely form a company and incorporate it.

The Michigan Pressed Brick Co., Lawton Avenue and Michigan Central railway has commenced the manufacture of artificial stone in one of the largest and most thoroughly modern sand-lime brick factories in the country. E. W. Clark is president, F. W. Hubbard, vice president, and Burns Henry, secretary and treasurer.

The Waynesboro (Pa.) Hydraulic Stone Co. has been organized with the following officers: John H. Gehr, president and superintendent; Edward Frantz, vice president and assistant superintendent; Daniel Hess, treasurer, and Ferdinand S. Gilbert, secretary. The capital stock is \$10,000.00, and has all been subscribed. This company make stone for building purposes, pavements, curbing, etc., by the Fisher Hydraulic System.

W. F. Siebler & Co., of Easton, Pa., secured a tract of land along the Easton & Northern railroad, near the cemetery bridge, to put up suitable buildings on for the manufacture of hollow cement blocks. The factories producing these blocks are becoming more numerous every day. The concrete building blocks is a reliable building material. Members of this firm are by no means novices in the use of cement, and if any one can make a good block it is certain that this firm will not turn out a bad one.

Altoona (Pa.) Concrete Construction and Supply Co., and the Frank Brandt Lumber Co. have been consolidated, the latter concern being absorbed by the new one. The company now has a capital stock of \$100,000.00, and the organization was effected by the election of the following officers: Frank Brandt, president and general manager; William Gaffney, vice president; Grant Von, treasurer; E. W. Yeagle, secretary. The company already has a number of large contracts for building residences in and about Altoona, Pa.

The National Art Stone Co., at the office of the company in the Law Building, Chester, Pa., have arranged an interesting exhibit of art work in stone for architects, builders, decorators and parties interested generally. The chief attraction is a handsome fireplace mantel which is made of manufactured stone. The design is most correct and proves a winning card for the company. Every visitor is well pleased with the display. One has only to see their finished product which speaks for itself. The officers of the company are: J. Franklin Levering, president; Allen P. Musselman, vice president; Hy. V. Smith, secretary; Dr. J. E. Fitzgerald, treasurer.

A Brief Description of Two Sand-Lime Brick Plants.

The sandlime brick industry has made such rapid strides in so short a period that it has attracted universal attention.

The advantages of these brick are becoming more apparent every day to the manufacturer, architects and builders.

From an interview with the treasurer and president of the Schwarz System Brick Co., of New York, the writer learned that they had but recently returned from the plants at Birmingham, Ala., and Charleston, S. C., which are operating under their system.

In these plants the greatest amount of care is given to the details of handling the raw material,

a warehouse, two churches, a bank building and a six-story hotel. These orders, with increasing ones, are taxing the capacity of the plants beyond the expectations of the managers and the output must be increased to keep up with the demand.

At Wilmington, Del., there will soon be in operation a plant using the Schwarz System, with a daily capacity of 100,000 brick, which will be the largest plant in the United States up to date.

Material to Last 25 Years.

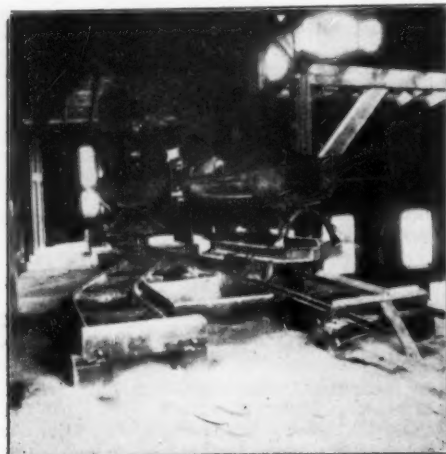
FLINT, MICH.—Mr. W. O. Smith, secretary and treasurer of the Flint Sandstone and Brick Co., writes under date of May 17: "This company has been organized with a capital stock of \$25,000.00, by W. T. Chappel, president; A. M. Lemke, vice president, both of Saginaw; and, W. O. Smith

Coloring for Cement Blocks.

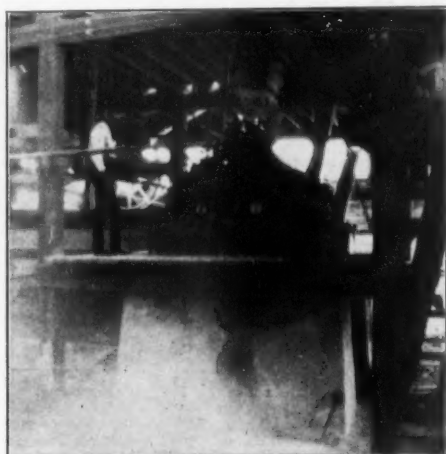
The National Building Block Co., 211 Grand Avenue, Milwaukee, Wis., under date of May 4, contribute the following useful information:

"The writer has been manufacturing colored building blocks, using Ricketson's red mortar color, manufactured by Ricketson Mineral Paint Works, Milwaukee, Wis., for the past five years, with success. We find it necessary to use the color quite strong as action of the cement lightens the product considerably when it is entirely dried out. We find that it requires about two pounds of this coloring to $\frac{1}{2}$ cubic foot of solid concrete to obtain a good strong red Portage entry or red Bedford stone color.

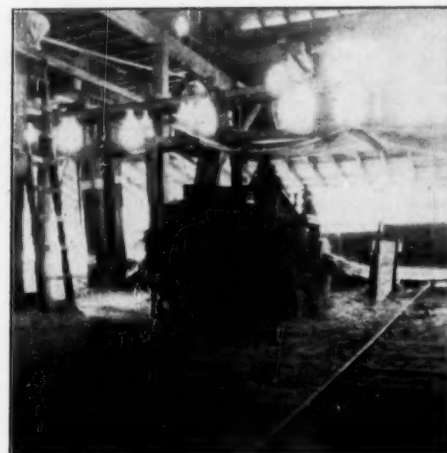
"The manner of mixing to get best results is to



Entrance of Raw Material, Schwarz System.



Mixing Machine, Schwarz System.



Press, Schwarz System.

all haphazard methods and guess work being eliminated.

The sand is carefully weighed and placed in cars, the contents of which are dumped into the preparing machine.

This machine dries the sand and being steam jacketed, heats it.

When the sand is dry the lime is added, and both being dry they are readily mixed. A definite and predetermined amount of moisture is then added to slake the lime, the mixing being continued through this operation. This machine is very simple, one ordinary workman manipulating it, having everything under absolute control. The material discharged from the machine has the snow-like property of packing readily.

as secretary-treasurer and business manager of Flint, Mich. We will manufacture sandlime brick with a capacity of 40,000 every 24 hours. The plant is to be of the best steel construction, now in course of erection, and they expect to be in operation by July 15. We will have a Corliss engine and employ all modern methods in handling the product in course of manufacture, thereby cutting down operating expenses. We have a supply of first grade silica sufficient to last 25 years."

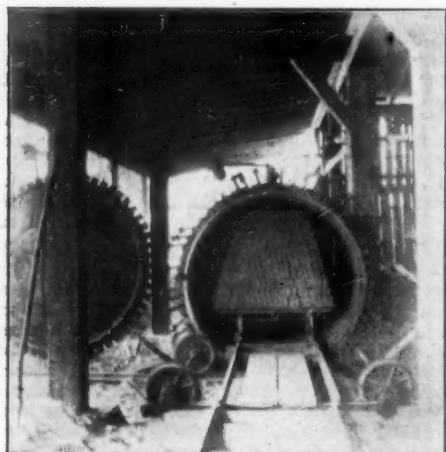
A World's Fair Invitation.

St. Louis, Mo.—J. E. Bedell, 1909 La Fayette Avenue, under date of May 17, sends the following invitation: "The readers of Rock Products when they visit the World's Fair (with its vast col-

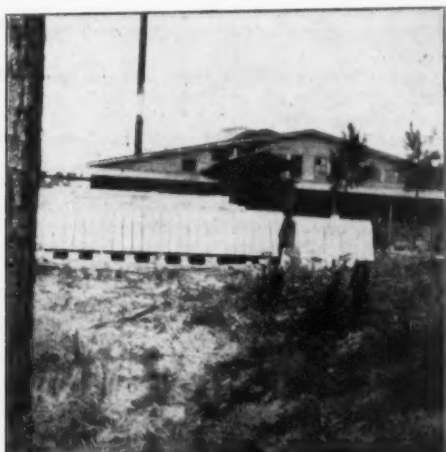
lect the coloring with cement dry, then add this mixture to sand and gravel in the regular way. This coloring matter being oxide of iron product it amalgamates with the cement and adds more materially to the strength of the concrete.

"We are frequently asked if this coloring matter fades. We answer 'No.' Of course the blocks should be colored very much deeper red when they are originally made and still moist than is to be required when block is thoroughly dried out. This varies somewhat in the different cements, however, a little judicious experimenting will put the operator in a position to determine the amount of material required to manufacture his blocks.

"The writer would suggest that it is to the advantage of the manufacturer to use a two piece



Hardening Cylinder.



Birmingham, Ala., Plant, Schwarz System.



Shipping Facilities, Birmingham Plant.

This hot material is then fed directly to the press from which the brick are taken and placed on cars. The brick come from the press so hard and compact in the green state that they can be thrown and caught from hand to hand without affecting them.

These cars loaded with brick are put into the hardening cylinder where they are soon converted into good and durable building material of great beauty.

After some hours these cars and brick are taken out of the cylinder and are ready for shipment.

Brick made of this process are now being used in the erection of a number of private residences,

lection of attractions) should not fail to see Bedell's concrete sewer cap and lockjoint curb stones exhibited by the St. Louis Graniteold Curbstone Co. They are just north of the Liberal Art Building and east of the Wireless Telegraphy Station. The company has made a god start in St. Louis with the sewer caps and curbing. Their work is giving the best satisfaction. For particulars and prices address J. E. Bedell as above."

The Warren Artificial Stone Co., Alliance, Ohio, has been incorporated for \$10,000.00. E. M. Milligen, J. M. Thompson, O. D. Morgan and Benjamin Bullis are the incorporators.

concrete block, as in this case only one-half of the entire wall or the front need to be colored.

"I had almost forgotten to mention that we are frequently asked relative to the alkali exudation that sometimes appears in the plain and colored cement building blocks. We find that this is very much more apparent where the blocks are manufactured with a 1 to 1 or 1 to 2 facing material, as this mixture carries more cement, and consequently more sulphate of lime than the blocks that are made of a mixture of fine sand and cement 6 and 7 to 1, which we have found is the better way of making blocks.

For the Retailer.

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Meets Semi-Annually.

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Official Organ, ROCK PRODUCTS.

How to Build a Lime House.

The country is literally full of poor lime houses, a large amount of lime going to waste yearly, in this regard simply responding to the laws of its nature, the yard men being at fault in their efforts to preserve it. When bulk lime is stored in rooms which really are no better than open sheds, the air coming in around the doors and windows, and often through the walls and floors, it will surely slack—and this is descriptive of a typical storage place for lime that is used by thousands. So poorly have many succeeded in preserving lime in bulk that in its place they handle it in barrels, always at a decidedly smaller percentage of profit.

It is not difficult, however, to keep bulk lime from slacking if the proper precautions are taken. The accompanying sketch will explain all that is known to date of the science that has a bearing on the subject. It will be seen that the vault proper is really one box inside of another, the space of six inches between them to be filled with slacked lime. There is no doubt other material that would answer as well, but the yard man who sells bulk lime and has not on hand enough that is slacked to fill the required space will in all probability have no desire to build a lime house.

A Properly Constructed Lime House.

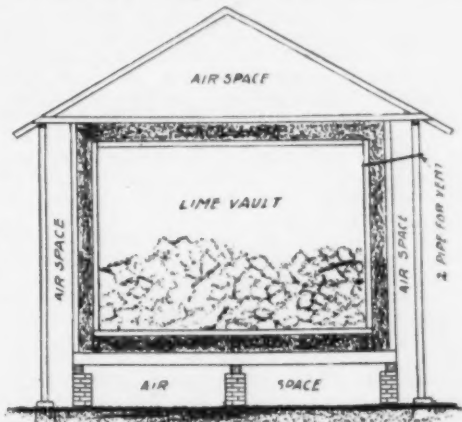
Around the box or vault is built the house, leaving an air space of six inches between the vault and the walls of the building. On the top of the building will be seen a ventilator, but it is hoped no one will think that its mission is to exhaust the air from the lime vault, as that would undo all

that has been done in the way of building tight walls. The object of this ventilator is to create a current of air around the vault and, to secure this current, air must be admitted at the bottom.

In some houses a pipe an inch and a half in diameter—represented by a black line in the diagram—extends from the vault through the walls, its object being to let off the gases. In case it serves this purpose it should be so constructed that it will close automatically. There are handlers of lime, however, who have not discovered that this vent pipe is a necessity.

The door should be made with care. Carpenters often exercise all the skill they possess in building the walls as tightly as possible, and then put in doors around which the air can enter as though they were sieves. The smaller the door the smaller the volume of air which will come in contact with the lime when it is opened. A door 2x2 feet is large enough, as through a door of this size with a long handled shovel every part of the vault can be reached. For durability the floor should be of hardwood—either birch or maple is excellent—the friction caused by the shovel and lime quickly wearing through soft wood. There must be provision for shoveling the lime into the house, and to meet this requirement a small door must admit into the vault near the top. This door, when shut, should also be air tight.

This principle, as described, is the one involved in the building of all lime houses which have proved satisfactory. In construction the plan may be modified, the more common change being to make the vault in the shape of a hopper. In this



event it is better to have the boards which are set on a slant hardwood, so that the lime will not wear them rough and cling to them.

Patents Covering Methods of Construction.

There are probably more good lime houses in Wisconsin than in any other State, due to the fact that a Wisconsin man has a patent on a lime house that has been adopted by many of the yard men. There is also another patent house—the patents on both of them, however, cover methods of construction, the object being the same, namely, to exclude the air. If the dealer has the ingenuity to build a vault that will meet this requirement he need spend no extra money for patented devices.

Every yard man who sells barreled lime in small quantities knows the perplexities attending it, particularly after the barrel is two-thirds, or thereabouts, empty. The nails with which the hoops are fastened often reach through an inch or two into the barrel, the shovel catches on these nails and perhaps the hand rakes against one of them. Often in a spirit of vexation the shovel is thrown down and the yard man picks out the lumps of lime with his hand, and as a lumberman's hands are supposed to be so tough that slivers will not stick in them lime will not more than eat the skin from them. This lime box is a most convenient appurtenance to a lime room. It is made of 2-inch stuff, is three feet long, two feet wide, a foot and a half high, and one end is put in slanting in order that the lime may be easily shoveled from it. It holds a barrel of lime and the cover shuts closely and hooks.—Met L. Soley in *The American Lumberman*

The Cincinnati (Ohio) Mill and Mine Supply Co. have incorporated for the purpose of manufacturing mill, mine and railroad tools and will operate on \$30,000.00 capital stock.

MEETING CALLED OFF.

The members of the National Builders' Supply Association will regret to learn, I am sure, that the summer meeting of that association has been called off.

At the meeting of the Cleveland Builders' Supply Association the executive committee admitted to membership one honorary and four active members.

The next meeting of the association will be held on the first Tuesday in February next.

An amendment was made to the by-laws of the association that in future four members of the Executive committee will hold office for three years and three for two years.

Cement Construction Growing.

S. A. Morman & Co., of Grand Rapids, Mich., May 9, 1904, write: "At the opening of the season the prospects for building operations were not very bright but this may have been due to the weather. Recently there appears to be more activity.

"Although there are no large buildings in prospect, still there are quite a number of frame houses, society buildings, additions to factories, etc. There also seems to be an unusual number of small houses in process of construction, which indicates the houses of the city are well occupied and a demand for more room. In fact, our real estate men claim that there are no houses for rent, which is a very good sign of prosperity. It is our observation that a large number of small frame houses are using the cement block in place of the stone for foundations. Concrete walls and cement construction seems to be growing in favor, while there seems to be a general effort on the part of those interested to advance cement construction. Although we do not see any possibility of a shortage in the cement production, there certainly is a large increase in cement construction. We believe this is true all over the country as well as in this vicinity. As the different methods of cement construction are advanced towards perfection we believe it will have a very satisfactory effect upon the cement trade, and that the manufacturers will reap their reward in the future.

"The use of hard wall plaster seems to be coming into general favor and is gradually spreading to the smaller towns. Although one would think that this changing to cement construction for foundations and to hard wall plaster for inside finish and walls, that the lime business would be curtailed, still our manufacturers seem to hold up to the usual volume which, to our mind, would indicate that the general amount of building in the country is increasing. Although general trade conditions seem to be slightly depressed compared with some recent good years, we believe the general prosperity of the country will hold up."

Thomas S. Evans, Washington, D. C., will erect a 5-story apartment house upon plans and specifications perfected by B. Stanley Simmons, architect. The front will be of gray brick and Indiana limestone 75.6 ft. front by 114 ft. deep.

John Price, of New York City, has secured the contract for the granite work on the new Naval Academy Building at Annapolis.

It is reported that the down town district of Pittsburg, Pa., will have another skyscraper in the near future. The Diamond National Bank expects to place a new 12-story structure on the old site. The plans will be such that six more stories can be readily added. The plans have already been drawn. The first three stories will be granite, the body of the building gray brick, and the cornice of terra cotta.

David W. Lewis Co., Boston, Mass., has been incorporated with a capital stock of \$50,000.00, to deal in builders' supplies. D. W. Lewis, Hyde Park, Mass., is president and treasurer, with Everett W. Lewis, Hyde Park, Mass., and Paul J. Smith, Somerville, Mass., directors.

The Mahoning Builders' Supply Co., Youngstown, Ohio, has been incorporated with a capital stock of \$25,000.00, by: S. B. Clegg, J. K. Horne, James H. Mullin, Joseph G. Swain and F. F. Clingan. The new concern will deal in brick, coal, cement, building blocks and other supplies on a large scale.

The Keeping Qualities of Hydrate of Lime.

The question has been asked, is hydrated lime any better or stronger in bond when used immediately after it had been hydrated than it would be when three to six old.

An examination of material four months old alongside of some which had been prepared the same day that sample was taken, indicated that the amount of water contained by each was essentially the same. The experience of those using hydrated lime for mortar has confirmed this to a large degree. There is apparently no difference in the working quality of lime which has been hydrated and in paper sacks after six months, as compared with that which has just come from the hydrator. If any one has had experience which indicates anything to the contrary, we would be very glad to hear from them, because we desire to give to the public all reliable information on this interesting subject.

Cement Roofing Tile.

The Furman Construction Co., of Detroit, Cleveland and New York, are out with a neat folder, putting forth the merits of their New Era Cement Roof Tiling, which is protected by patent in the United States and Canada. They are said to be storm and fire proof, light in weight and can be made in any color. The joints are made water tight by an interlocking device. They are made in steel dies and on steel plates so that they are uniform in size.

New Source of Corundum.

The Minnesota Abrasive Co. have erected a concentrating plant at Crystal Bay on the North shore of Lake Superior about fifty or sixty miles out from Duluth. This will offer a new source of corundum for the users of this article in the United States.

William Wirt Clark & Son, Baltimore, Md., are furnishing a contract for about one million Montello brick for the Wm. J. Cooper Manufacturing Co., of Baltimore, and over 500,000 Montello street paving vitrified blocks for Washington, and over 40,000 Peach Bottom slates for the Brooklyn Navy Yard. They are also shipping their celebrated Chesapeake lime and Gun Point fire clay to the Brooklyn Navy Yard, and their celebrated Calumet vitrified sewer pipe to the United States Naval Academy at Annapolis, Md. They offer for sale a valuable white sand deposit suitable for the manufacture of sand-lime brick. They also have a valuable shale deposit suitable for the manufacture of the highest grade of vitrified street paving blocks.

E. W. M. Evans, Petaluma, Cal., says he is putting in a small crusher on his granite waste and finds a good sale for it, all except the fine dust. It does seem that there ought to be some use for it, but so far he has been unable to find any. He wants to know if it could not be used for mortar for laying pressed brick or some such work. He says he has had more good information out of Rock Products than any other one source, and that he does not want to be without it.



Red Beach Plaster Co.'s Storehouse and Packing Shed, Red Beach, Me.

Plaster.

The National Plaster Manufacturers' Association.

Meets Semi-Annually.

H. E. DINGLEY, Syracuse, N. Y., President
A. H. LAUMAN, Pittsburg, Pa., First Vice President
L. G. POWELL, Toledo, Ohio, Second Vice President
JAS. LEENHOUTS, Grand Rapids, Mich., Third Vice President
ALEXANDER FORRESTER, Cleveland, Ohio, Treasurer
E. H. DEFEBAUGH, Louisville, Ky., Secretary

Official Organ, ROCK PRODUCTS.

An Eastern Plaster Plant.

Close to the eastern end of the United States, not far from the place where you jump off and get over into Canada, there is located a plaster plant which has been doing business at the old stand for more than fifty years. The Red Beach Plaster Co. was started by a gentleman named Bergen about 1840, and in the early 50's this plant was purchased by C. H. Newton, father of the present treasurer and manager, George E. Newton. Mr. C. H. Newton operated this plant until the time of his death in 1877, since which time his son has carried on the business. This plant has always been operated on Windsor gypsum which is brought from Nova Scotia by boat. The products produced here are calcined plaster, land plaster, and a special calcined plaster for use in the textile industries.

The capacity of the plant has been increased from time to time until at the present writing two kettles are being run with an average output of 110 tons daily. Soft coal is used for fuel and brought in by boat. Water supplies the power for running the mill which consists of crushers, grinders, buhr mills, conveyors and transportation arrangements. They operate their own coopeage plant, and have a vessel or two that charter many more, not only for the transportation of the raw rock of the plant from Windsor, but for the transportation of the finished product to rail shipping points.

The picture of the plant does not adequately represent it, because you really see but two stories, the bulk of the plant being below or between the level of the street and the level of the wharf. The storage is all on this ground floor and is something enormous. They have room for about three thousand tons of finished product and about twenty thousand tons of raw stock. The raw stock is conveyed from the vessels either to the storage bins or to the crusher, being carried on an incline drawn by a chain which is operated by water power. The

store rooms for the finished product are on a level with the docks and it can be rolled right to the vessel's side. A great deal of the calcined plaster is shipped in barrels but some cloth is used.

This company purchase their gypsum from the Windsor mines, but own a large amount of gypsum land in Nova Scotia, which can be developed any time that is needed. The duty on the raw gypsum is not very high, so that it is probable that gypsum can be laid down at the door of this plant by water transportation as cheap as it could be loaded on the cars either in Ohio, New York or Michigan. The use of the inexpensive water power will materially aid in getting out the freight from this point to central markets.

The Dayton Fibre Plaster Co., Dayton, Ohio, has been incorporated by J. E. Parrott, J. R. Parrott, C. H. Lyon and W. C. Ely, with a capital stock of \$25,000.00.

The National Wall Plaster Co., of America, with offices at 539 Onondaga County Savings Bank Building, Syracuse, N. Y., expect in the near future to put in a plant for the purpose of grinding talc. They are at present in the market for machinery, and they are looking for the best; such as tube mills, Griffin mills, buhr stones, cylinders and pulverizers. They intend to make a very high grade of material, requiring the best system of manufacture.

The Grand Rapids Plaster Co., Grand Rapids, Mich., Western sales agents of the Sackett plaster board, the well known patented sectional plaster material, are issuing a neat little folder setting forth in an attractive and convincing way its specially valuable features, among which are the sound-resisting and fire-resisting properties of their excellent substitute for wood in the construction of walls and ceilings.

SALT.

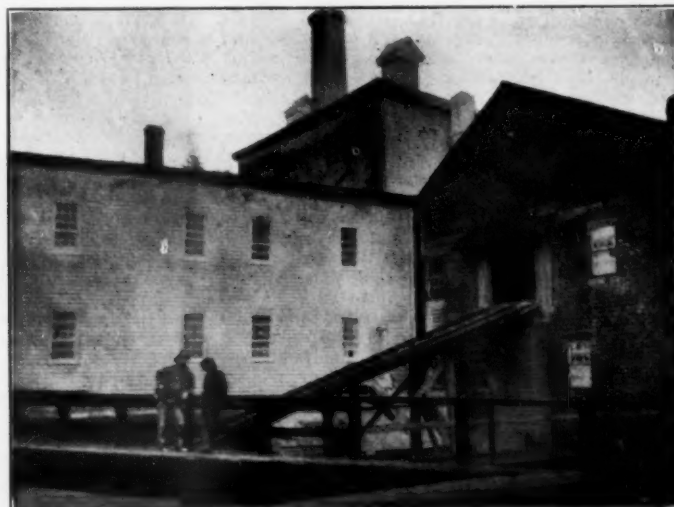
Michigan, New York, Kansas and Ohio produce 90 per cent. of all the salt of the United States, which exceeds 20,000,000 barrels annually.

The Worcester Salt Co., of Silver Springs, N. Y., shipped its second special train load of salt, consisting of 125 cars to the market recently.

The International Salt Co., of New York, whose operations are located at Retsof, Livingston County, N. Y., has been capitalized at \$500,000.00 by: M. M. Belding, M. M. Belding, Jr., and W. B. Putney of New York City.

Jonathan G. Wynkoop, secretary and treasurer of the Salt Springs Solar Coarse Salt Co., Syracuse, N. Y., has celebrated his 80th birthday. In spite of his four score years he attends to business at his office with great regularity, and he has been a prominent figure in the salt industry since 1871.

The Paragon Plaster Co., Syracuse, N. Y., desire to correct a typographic error which occurred in last month's Rock Products under the head of "Syracuse" in the correspondence of the paper. They have awarded the contract for the erection of their sand-lime brick plant to the American Sand Stone Brick Machinery Co., of Saginaw, Mich. Our printers got it American Sand-Lime Brick Machinery Co.



Red Beach Plaster Co.'s Calcining Plant, Red Beach, Me.

Clay.

The Drury Brick and Tile Co., at Essex Junction, Vt., have resumed work at their yards.

Superior, Wis., is getting into line and will have a sand-lime brick plant installed in a short time.

The Eastern Illinois Brick Co., Beecher, Ill., has increased its capital from \$25,000.00 to \$50,000.00.

Mr. Leonard, formerly of Grant City, Iowa, is arranging to establish a brickyard at Redding, Iowa.

J. W. Smith and E. P. Elliot, of Chanute, Kansas, contemplate the location of a large brick plant at Wellington, Kansas.

Fields & Co., Chester, Pa., have resumed operations at their brick plant. A number of improvements are contemplated.

The Hinkley brickyards at Luverne, Minn., are burning their first kiln of the season, having a lot of 200,000 under way.

George Bruner, of Streator, Ill., has purchased a location and will erect a brick plant at Wichita, Kas. He will start with a capacity of 35,000 daily.

Harry H. Fletcher, of Forsythe, Mont., has increased the capacity of his brick plant by making changes and putting in considerable additional machinery.

The William King Cement Co., of Cedar Rapids, Iowa, has installed a set of machinery for the production of the sand-lime brick. The plant will produce 20,000 daily.

The Keim Brick and Tile Co., of Louisville, Stark County, Ohio, has been incorporated at \$25,000.00 by John Keim, Mahlon J. Keim, Charles A. Montgomery and Walter S. Eniseman.

The new brickyard at Prosser, Wash., established by Garrett Bros., of North Yakima, Wash., is now under way, and has the first kiln going. They are doing business as the Prosser Brick and Tile Co.

The Rockwood Brick and Tile Co., of Rockwood, Roane County, Tenn., has been incorporated with a capital stock of \$5,000.00 by M. F. Millican, M. H. Phillips, E. B. Shodden, J. F. Register and F. C. Copeland.

The extensive brick plants of the Peerless Brick Co., and of Matthew Schwegler, of Lebanon, Pa., have been consolidated under the corporate style of the Peerless Brick Co. Business is rushing and the output of the two plants will be tested to their utmost capacity.

It is authoritatively stated that a company has been organized at Big Prairie, near Wooster, Ohio, for the purpose of operating brick and tile works. V. M. Getting, E. W. Miles, G. S. Sanborn, Dr. W. H. Singley, Dr. C. L. Buckwalter and J. D. Canan are the parties interested.

S. J. Allen, who owns large brick plants at Parsons, Kansas, and other points in the West is arranging for a large brick plant at Sedalia, Mo. He expects to obtain the contract to supply the Missouri Pacific with part of the material for its new shops, besides other contracts already in hand.

The Pennsylvania Enameled Brick Co., organized at Oaks Station, Montgomery County, Pa., started with a capital of \$100,000.00. Incorporators are: William F. Burdan, Newport, R. I.; Henry Burdan, Cazenovia, N. Y.; James L. Rankins, Elizabeth, N. J.; Arthur E. Barnes, Norristown, Pa.; Charles Emlen, Phoenixville, Pa.; C. C. Barnes, Oaks Station.

The Sunset Brick and Tile Manufacturing Co., Santa Monica, Cal., is completing four new kilns, which are lined with fire brick and so arranged that the heat which is used in burning the brick is later conveyed by blowers through brick tunnels to the dry-house and is used again in drying the brick. The new kilns have cost about \$4,000.00 each, and other improvements are contemplated.

CHICAGO BRIEFLETS.

The Northwestern Terra Cotta Co. have moved from The Rookery to suite 1415 Railway Exchange Building, corner of Michigan and Jackson Boulevards, Chicago.

Chicago Fire Brick Co., 518 Chamber of Commerce Building, have found business a little backward so far this spring. There is a lot of work contemplated but it has not as yet materialized, but now that fine weather has come to stay they expect business conditions to materially improve.

Chicago Brick Co., 409 Chamber of Commerce Building, with yards at Brighton Park and Riverdale, south of the Calumet River, are running full time and are behind with their orders. They find business fairly dull in Chicago, but the demand from the country is very brisk. The late strikes have been to a large extent instrumental in causing the dullness in the building trades in Chicago.

Chicago Hydraulic Press Brick Co., 301 Chamber of Commerce Building, have found business quiet up till last month; the prospects, however, look very much brighter than they did two months ago. The usual number of small buildings in the suburbs and outskirts of Chicago have not been going up as freely as formerly. Men of moderate means have been holding off in the hope that prices of labor and building materials will be lower.

N. A. Williams Co., 1306-1307 Chamber of Commerce Building, through Mr. W. A. Humphreys, vice president and general manager, report business as being very good with them, with a decided improvement in the outlook. They handle sewer pipe and fire brick, flue lining, coping, chimney tops and cement.

The Illinois Brick Co., 915 Chamber of Commerce Building, through Mr. George C. Prussing, president, report that their experience leads them to believe that there will be more buildings erected this year than during either of the past two years. While it had the appearance as though the erection of speculative buildings would be checked by the higher price of brick, the legitimate improvement of down-town property and the erection of factories has more than made up the difference. People are now convinced that the advance in building material is legitimate and prices will be maintained. The price of brick delivered at the building to-day is \$7.00 per thousand. Chicago is a big market for brick and one of the expensive items is the transportation from the yards to the building. Travel is so congested it delays the teamsters and makes delivery expensive. That the price of brick is not too high in Chicago is proven by a comparison with quotations in other large cities, and the failure of country yards to deliver brick here.

U. S. Roeding Grate Bar Co., suite 1307 Great Northern Building, have been very busy and have equipped a large number of electric light plants, sugar mills and other factories with their grate bars. Amongst others they recently put in twelve sets for the Holland Sugar Co., of Holland, Mich., who were so well pleased they ordered twelve sets for their new plant at St. Louis, Mich. These grate bars can be used for any plant that uses power.

American Sand Lime Brick Co., 1306 Great Northern Building, are away behind with their orders and their shops at Anderson, Ind., are running day and night. They are 30 to 40 days behind with their orders.

Chicago Brick Machinery Co., 1308 Great Northern Building, have just closed three big contracts, one in Michigan, one in Missouri and one in Nebraska, for their clay brick machinery. Their machines have been meeting with considerable favor, both in dry press and stiff mud lines, and the factory is rushed keeping up with the orders.

S. S. Kimball Brick Co., 304 Chamber of Commerce Building, who are furnishing the brick for the big Ryerson Building, at Adams Street and the River, estimate it will take over 350,000 brick. They are using paving brick, laid in Flemish bond, with white joints. This is the only large business building in which Flemish bond has ever been used in Chicago, and it makes a very striking appearance. They are furnishing the brick for four stables and distributing stations which The Fair department store are erecting in different sections of the city. The new Congregational Church at Wilmette, Ill., and a new theatre at Waukegon, Ill., are two other jobs they have which will require about fifty thousand brick each.

Side Talk.

Sketch of a Thrifty Business.

Thirty years ago E. J. Hooker, inventor of the Hooker Elevator Carrier, was born in Poultny, Vt., and received his education at the Troy Conference Academy. Being of an inventive turn of mind he turned his attention to the industries of his native town. The owner of an extensive slate quarry once told him if a man could invent a machine that could raise the blocks of slate and all rubbish from the quarry so that it could be stopped at any point desired and dump its load automatically, it would be something needed and used by every quarry owner in the world. Mr. Hooker went to work by the day in a quarry and there studied the details thoroughly and developed his ideas on that very subject.

In 1898 he perfected the invention of his first carrier, placed it in the quarry of Mr. M. McCarty, at South Poultny, Vt., and it proved a success, so he had the device patented. From that time on he has continually made improvements until now and the Hooker Elevator Carrier is perhaps the most perfect on the market.

In 1902 in connection with his brother, under the firm name of Hooker Bros., they established a fine machine shop, 50x100 feet, at Poultny, Vt., equipped to turn out their carrier and other quarry supplies with the utmost precision and speed. This same year the down incline carrier was invented which has been used on a cable 1,400 feet between supports, and its success has put quarries on a paying basis that otherwise would have been abandoned.

The Hooker carrier saves an enormous expense of rails, tiles, tracks, cars, operators; and, last but not least, among its advantages it will handle twice as many blocks of stone or loads of rubbish as by any of the old methods could move.

They are used by lime manufacturers to raise stone from the quarries, carrying it to their kilns and dumping it automatically at the top, or if the kilns are too far away, they will load it upon cars or wagons.

They are also useful in the building of canals, the operation of mines, the excavation for all kinds of buildings and dams, loading and unloading of ships or cars; in fact, anywhere it is possible to use a carrier.

Until this year the Hooker Elevator Carrier had never been advertised and was used only in Vermont, New York and a few places where the quarry owners had seen it work. In the January (1904) Rock Products Mr. Hooker placed his first ad. and he says that by the fruits of this ad. the carrier is now used as far West as Arkansas, Southern Alabama, Northern Canada and Eastern Nova Scotia, and his testimony will show how much Rock Products has done for an advertiser.

The Allis-Chalmers Bullock Co.

The Canadian business of the Allis-Chalmers Co., which recently acquired the Bullock Electric Manufacturing Co., of Cincinnati, Ohio, will hereafter be conducted by a new organization known as the Allis-Chalmers-Bullock, Ltd., the works and principal offices of this important new Canadian company being in Montreal.

Mr. H. B. Crow, who has been in charge of the Salt Lake City, Utah, office of the Allis-Chalmers Co. for several years, has been put at the head of their San Francisco office at 623 Hayward Building.

Mr. James W. Lyons has been appointed manager of the newly created power department of the Allis-Chalmers Co., with headquarters in Chicago. This department will control the sale of reciprocating steam engines, steam turbines, condensers, gas engines, pumping engines, blowing engines, hoisting engines and air compressors. Mr. Lyons is well and favorably known in these lines throughout the country.

Mr. C. C. Tyler has been appointed general superintendent of all the works of the Allis-Chalmers-Bullock interests in the United States. Mr. Tyler, who will enter upon his new duties on June 15, will make his headquarters at Milwaukee.

Demand for Machinery Good.

The New Albany Manufacturing Co., New Albany, Ind., builders of stone working machinery, report a good demand in every department of the stone industry requirements. They have a number of orders for the erection of gang plants, among which may be mentioned a complete plant of six gangs for the Empire Stone Co., and another plant also of six gangs for the Chicago and Bloomington Stone Co., both of which will be erected at the quarries in Bloomington, Ind. They also have a nice order from the Alabama White Marble Co., Sylacauga, Ala., for a large rubbing bed and two gangs complete. Also another going to Chattanooga, Tenn., for the Wheland Machine Works, who manufacture steam engines and sawmill outfits, consisting of one of their new pattern electric traveling cranes and a 150 h. p. generator and motor with which to run the machine. Going through the shops with Mr. Bailey, a representative of Rock Products observed one of their celebrated planers of very large dimensions, all complete and set up for trial, another of the regulation size is in course of construction. The monster drives its ponderous bed back and forth noiselessly and using as little power as the smaller size machines. Another machine is called a header on which the stone is clamped firmly to the bed and the working tools are propelled in massive jaws capable of almost universal adjustment. In their own plant the company employs an electric traveling crane of the newest pattern, taking care of all the work in one of the largest shops, but at the same time performing a duty of a simple outfit for prospective buyers. This electric crane has proven a pronounced success wherever it has been put in operation. Quite a number of them have been sold. Its speed and reliability, not to mention the increased conveniences of the ensemble recommending it to every practical stone contractor.

The American Process Co., 62 and 64 Williams Street, New York City, desire to call attention to three points of especial excellence in their improved direct heat rotary dryers, viz.: The continuous action of the dryers, the direct heat principal in which the temperature can be adjusted to suit the most delicate and refractory material, and the simplicity of its construction as a whole, the moving parts being few and so put together that the wear is small and entirely confined to parts easily repaired or replaced at a small cost. And, least but by no means last, they claim that that much to be desired quality "most economical" both in the first cost and in the cost of operation, requiring a minimum of labor and utilizing a maximum of heat in the fuel. They will be glad to furnish complete catalogue which sets forth in full details the entire workings of the machine.

The Canton Foundry and Machine Co., Canton, Ohio, proprietors of the Universal Machine Works, one of the best equipped pattern, foundry, machine shops in the country, announce two recently perfected machines. One machine for Thomas F. Turner, Canton, Ohio, and Leroy Pfouts, as patentee; a rock drill having self-contained power in each drill and instantly adjustable in any direction while running, for use in all kinds of mines and quarries. Another machine constructed for the Fulton Machinery Co., Canal Fulton, Ohio, of which Leroy Pfouts is also the inventor and patentee; a new pulverizer for rock, gold quartz, etc., which is claimed to be a very superior tool as compared with anything heretofore in use for such work.

Mr. Geo. Raymond, Chicago, Ill., the well known inventor, has made some very important improvements in roller mills and air separators, which have been tested and have proven a great success. He has lately associated himself with Mr. T. L. Knudston, a practical machinery man and engineer of long standing, as business manager.

Broderick & Bascom Rope Co. have a fine exhibit at the World's Fair, but their folder is the best thing in hand now. It illustrates their "Power" rope—Samson holding up the St. James Building in New York.

W. H. Anderson & Sons, tool manufacturers, Detroit, Mich., report an exceptionally bright outlook for the coming season. They are running with a largely increased working force. The portable concrete mixer being sold for building cement sidewalk contractors is proving a big seller.

Our representative reports a pleasant call on the Union Steam Pump Co., Battle Creek, Mich., where the now famous Burnham pump is made.

The pumps made by them have the special feature of not short-stroking and it is said, will not injure from load to no load without change of throttle steam.

Hydraulic pumps under pressure of 4,000 to 5,000 pounds per square inch do not strike the heads upon instantaneous release. Our representative reports this company as having had a wonderful growth.

They enjoy a large foreign trade as well as domestic and have recently made large shipments to London, Eng., Milan and Geneva, Italy; Christiania, Norway, and Schiedam, Holland, as well as their usual shipments to Canada and Mexico.

Their exhibit at the World's Fair is most advantageously located opposite the main entrance in the Machinery Building.

The General Fireproofing Co., of Youngstown, Ohio, who have so successfully exploited Herringbone Expanded Steel Lath, of which they are sole manufacturers, are now manufacturing heavy gauge expanded metal for re-inforcement of concrete floors, and their business in this line is very promising. In addition to the manufacture of this material, this progressive company has embarked in the construction business with offices in New York City, Chicago, Pittsburg and Washington, and are taking contracts for steel concrete fireproofing, using their own expended metal for the re-inforcement of concrete in this type of construction. This system is received with so much favor by architects and engineers, that the company now have on their books contracts which will keep them busy this season. Their expanded metal is being largely used by the Government in public works, and with the aggressiveness this company has displayed in the marketing of their products in the past, they will no doubt book a large proportion of the tonnage of this material that will be used.

Information Bureau

A Few of the Direct Inquiries Made to the

Office of Rock Products During Last Month.

801.—We want prices on concrete mixer for mixing Portland cement for sidewalks.

802.—We want the addresses of manufacturers of the new Jackson hand-power rock drill.

803.—I am in the market for pneumatic hammers, compressors, and other necessary equipment for small plant.

804.—We are in need of from 300 to 500 ft. of 1-in. iron pipe.

805.—We would like information relative to the cost of hydrating ten tons of lime, also what a plant capable of hydrating ten tons a day would cost, independent of power.

806.—Where can we get sand for making all colors of artificial stone, especially brown stone?

807.—We are in the market for light T rails.

808.—We want stone wheelbarrows.

809.—We want frogs.

810.—We want two-wheel dump cars.

811.—We are in the market for crushers, screens, conveyors and other quarry equipment

812.—We are in the market for lime.

813.—We would like to communicate with firms that handle a preparation used in foundations and buildings to keep out water and moisture.

814.—If you desire a well-equipped stone business with all the facilities for handling same, and a good quarry in a live, up-to-date town, you can secure same by addressing this number. The opportunity is one in a life time. Ill health is the only reason for selling.

815.—We want sledge hammers.

816.—We are in need of dump cars.

817.—We want a hoisting engine.

818.—We are in the market for rock drills.

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FOREMAN—For rock quarry in Central Illinois; must be thoroughly acquainted with the use of air drills and the handling of dynamite, and capable of handling common labor economically; must be strictly sober. Address, stating full experience, and giving references, ROCK QUARRY, care Rock Products.

NIGHT MAN—Sober, industrious man, capable of taking charge of cement works at night. Address CRESCENT PORTLAND CEMENT CO., Wampum, Pennsylvania.

SALESMAN—Experienced and high-class salesman, successful in contractors' trade, to handle a leading make of rock drills and compressors. Address Box No. 30, care Rock Products.

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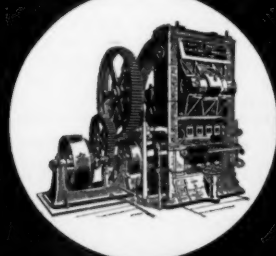
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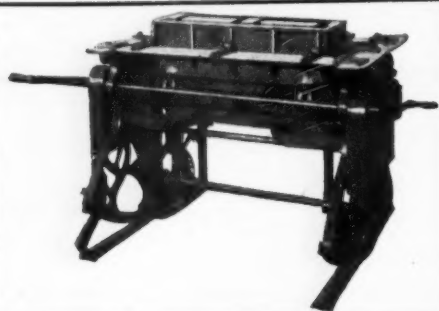
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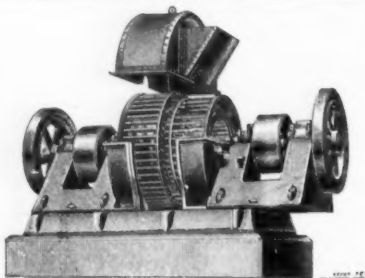
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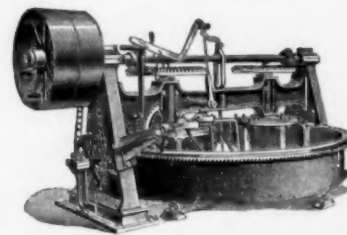
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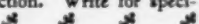
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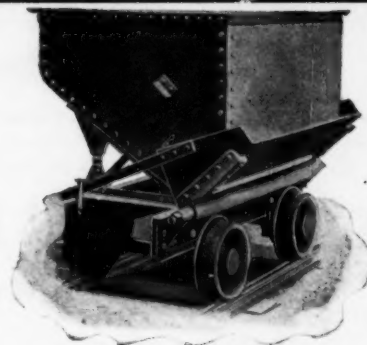
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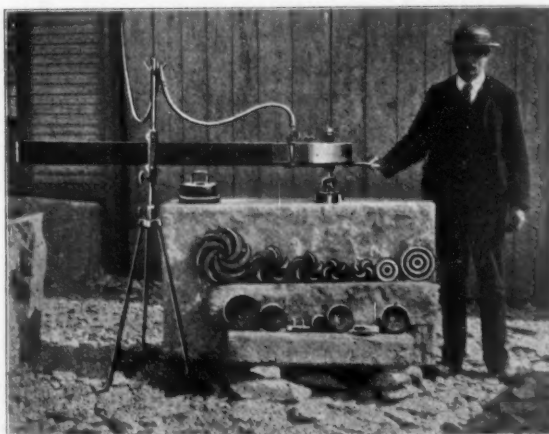
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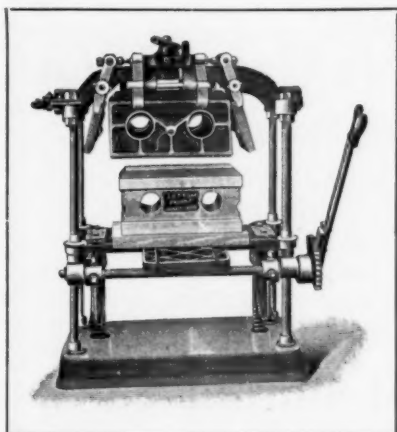
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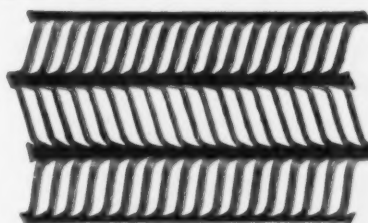
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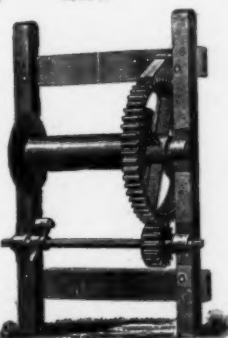


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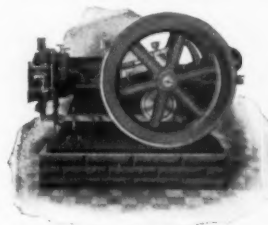
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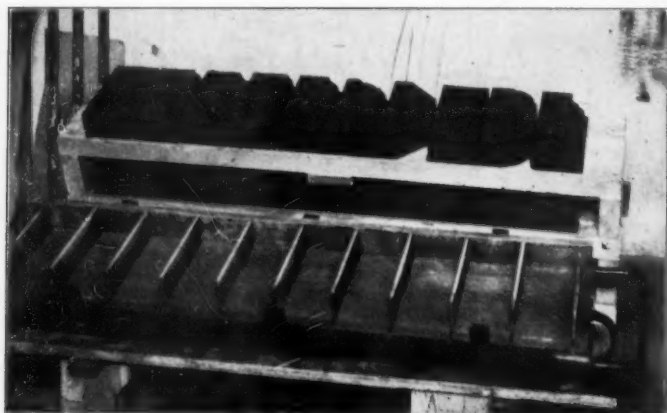
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This increases its efficiency 25% or more.

You can accomplish, without increased cost, more work with a given quantity, as the finer the cement the greater its sand-carrying capacity.

Thus improved,

Louisville Hydraulic Cement

meets the demand for a very finely ground, reliable cement for brick, stone or concrete construction.

Nature is our chemist. Our product is therefore uniform.

We should like to have you write us for our illustrated pamphlets. They are interesting to cement users.

Western Cement Co.
281 W. Main St., Louisville, Ky.

THE Louisville Drying Machinery Co.

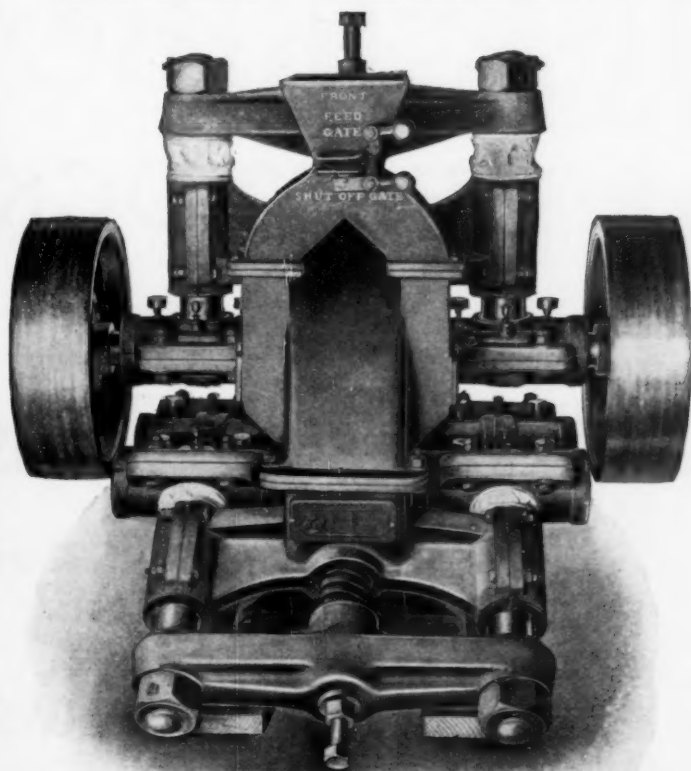
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Build

DRIERS

For all purposes.

THE KENT PULVERIZER



Takes one inch feed. Grinds to any fineness
from 10 to 200 mesh.

GRINDS PER HOUR WITH LESS THAN 25 H. P.

CEMENT CLINKER,	40 bbls.	to 98%	20 Mesh.
CEMENT CLINKER,	12 "	" "	100 "
LIMESTONE,	2½ tons	" "	200 "
LIME,	4 "	" "	100 "
ROSENDALE CEMENT,	43 bbls.	" 90%	50 "
QUARTZ TRAP-ROCK,	4 tons	" "	40 "

You can easily figure from this what a
Kent Mill would save for you.

W. J. BELL, Esq. Supt.
NEWAYGO PORTLAND CEMENT CO.,
Newaygo, Mich.

Says:—Four KENT MILLS are driven by one 75 H. P. motor.

For Catalogs and Information, Address

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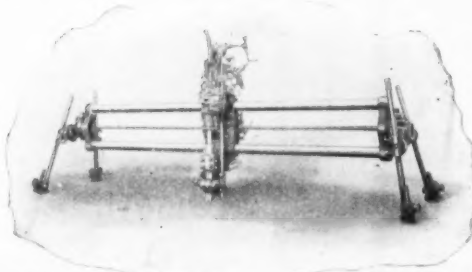
170 Broadway,

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MODERN MACHINERY FOR QUARRYING

Air Compressors
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 "Broncho" Channelers
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The "BRONCHO" CHANNELER is the most improved machine of this type on the market.

Especially adapted for light Quarry work and cutting in difficult places.

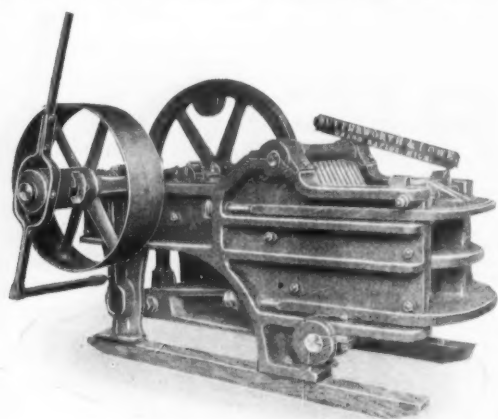
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Rooms 1529, 1530, 1531 and 1532, 150 Nassau St., NEW YORK, N. Y.

SLACK COOPERAGE STOCK.**CEMENT AND LIME STOCK**

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MILLS: New York, Ohio, Kentucky, Virginia, Pennsylvania, Michigan, Tennessee and North Carolina.

Special Machinery

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Plants installed complete.
 Economy and capacity recognized.

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SPECIAL PRICES ON

**Bush Hammers, Tooth Axes,
 Hammer Head Tools.**

Send for Special Rock Products Offer.

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Companies Organized and SYSTEMS INSTALLED with
the most modern EQUIPMENT.

STANTON SYSTEM CONCRETE SAND=LIME BRICK.

Comprising the entire line of COMPOSITION MATERIALS.

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Any COMPANIES manufacture Concrete Stone, moulded
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LITHIC CONSTRUCTION, Foundations, Bridges, Sub-ways,
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Brick.

ELMER E. STANTON,

Originator and Sole Owner.

Concrete Engineering Experts, Inspectors and Directors
of Operations Furnished.



"JUST AS EASY."

"JUST AS EASY."

Yes, that is what they all
say when they use

Pettyjohn's

Hollow Concrete

BUILDING BLOCK MACHINE

BEST, FASTEST, SIMPLEST,
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No carrying off blocks, conse-
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BUT IT DOES THE BUSINESS.

Work is low down making filling
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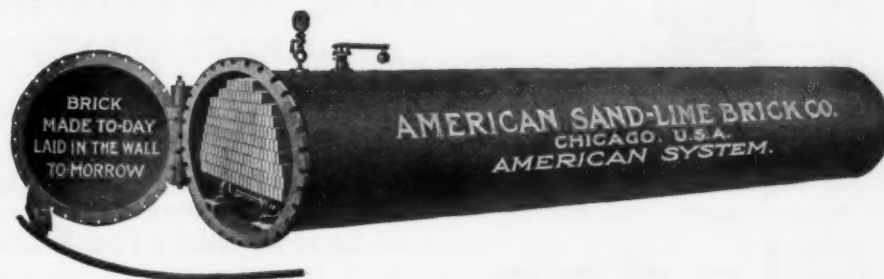
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The Best Money Maker In This Country To-day

Plants installed complete on the AMERICAN SYSTEM equipped with AMERICAN MACHINERY, started and operated
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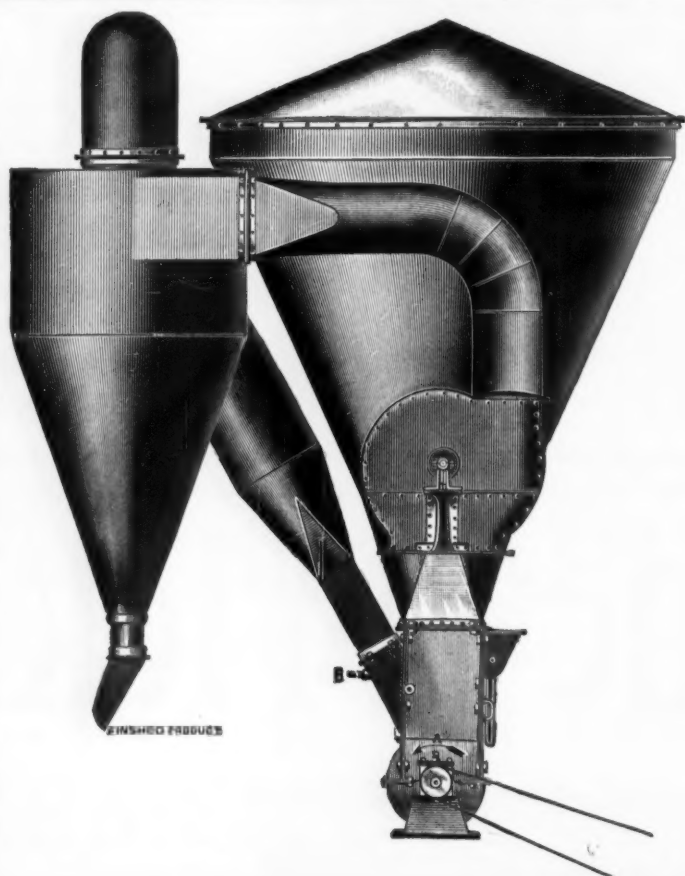
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Reducing and Separating Machinery of all sorts
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*Air Separators for Cement Mills
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Grinding and Separating of any material to
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Absolutely dustless in operation.

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Carefully Straightened and Cut Square and True. Ordinary Sizes Constantly on Hand.

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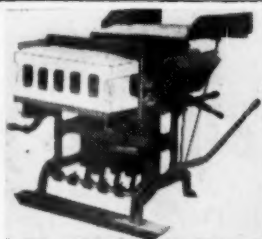
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Manufacturers of Mixers, Screens, Dryers, Conveyors, Etc., for equipping Building Block and Wall Plaster Plants. Ask for catalogue and prices.



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"HAWK" Brand

STEEL for
POINTS,
CHISELS,
DRILLS, Etc.

Trade-Mark—1897—Registered.



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TOOLS,
POINTS,
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Every Description of Steel.

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Represent the latest advances in the construction of pneumatic tools for stone working. It will be to your advantage to investigate the improvements which are being effected by us in this class of apparatus before risking, perhaps, a large investment in machinery that may prove antiquated almost before it is installed.

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These drills in both sizes are adapted to drilling in granite, bluestone, trap-rock, marble, sandstone, limestone, slate, etc.

No. 1.

Designed for drilling holes from $1\frac{1}{4}$ in. to 2 in. in diameter to a depth of 1 ft. to 6 ft.

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Designed for drilling holes $1\frac{1}{4}$ in. and under in diameter, and to a depth of 1 ft., are especially adapted to plug-hole work.

AIR COMPRESSOR,

Four-Cylinder Belt-Actuated.

Self-lubricating, simple, compact and durable in construction; has a capacity of one cubic foot of free air per revolution, and is designed to operate at 200 revolutions or less per minute, occupies a floor space 66 x 30 in.

Further information, catalogue, prices, etc., will be furnished upon application.



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Manufacturers of the celebrated
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"Buckeye" has stood the wear and tear in many important places for the past fifteen years and under the new process of manufacture is now better than ever :: :: ::

WE INVITE YOUR
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The Best Portland Cement Is

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Write for Catalogue.

Capacity, 4,000,000 Yearly.



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We make one brand only.

The best that can be made.



"LIMOID"

SEWER PIPE
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LAND TITLE BUILDING,
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is made from LIME-ROCK AND SHALE. It is always uniform and is unexcelled for every kind of work for which cement is used. Write us for prices

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MAKERS OF THE FAMOUS BANNER BRAND OF

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Guaranteed that 90 per cent. will pass a
ten thousand Mesh Sieve.

WE SELL TO DEALERS ONLY.

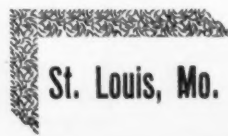
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CHARLES W. GOETZ LIME & CEMENT CO.

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Write us for prices.

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Swindell Patent Lime Burner and Swindell Patent Water Seal Gas Producer.

The only successful method of Burning Lime
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40 per cent. increase in output of Kilns.
30 per cent. Saving in Fuel.

Eight Kilns in successful operation for past seven months at Toledo
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WM. SWINDELL & BROS.

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The Finest Qualities Dry Mortar Colors,



Red (2 shades,) Black,
Buff, Brown, also
Makers of Graphite

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Samples and Prices furnished
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We protect the Dealers.

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The Central Ohio Lime and Stone Co., of Marion, Ohio.

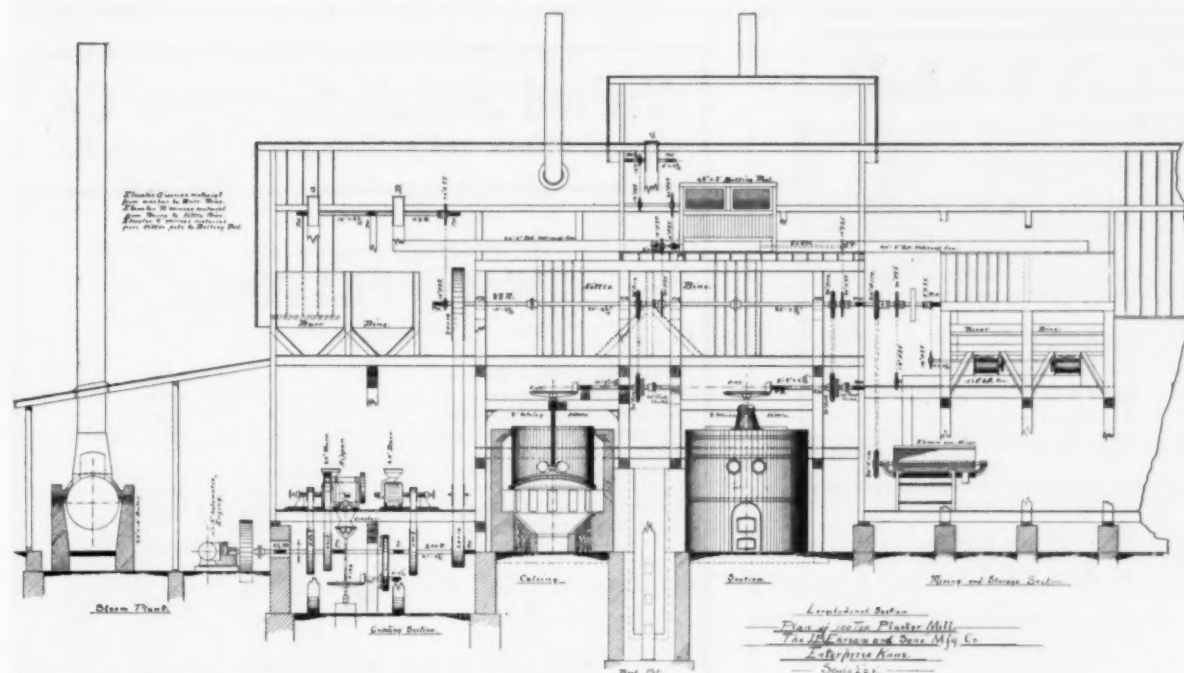
Capital \$150,000.

We own One Hundred and Seventy Acres of the best and choicest lime and stone land in Central Ohio. The plant is located north of the city on the Pennsylvania R. R. We are now operating our plant with a large force of the most experienced men that can be found anywhere.

We produce and have the statements to show that we have the best white lime that is on the market. Our furnace stone is pronounced by experts and consumers to be the best they have ever used.

Our kilns and crusher plant are now in full operation and we solicit your patronage. We guarantee our product to be as good as the best, give us a trial order and be convinced of our statement. All orders placed with us will receive prompt attention.

THE CENTRAL OHIO LIME AND STONE CO.



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Turkey Emery Rock
Burr Mills
Plaster Mixers
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Conveying, Elevat-
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Machinery.

We are prepared to submit plans and estimates for the complete equipment of wall plaster mills, and furnish all machinery required of our own manufacture and design. **Special Machinery to meet special requirements.** Twenty years experience in building and equipping Wall Plaster Mills. New Catalogue in press. Write for a copy. Address

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THE NEW PROCESS Wood Fiber Wall Plaster.

A Winner from the beginning. Architects and Artisans unite in its praise. The demand for this famous brand of wall plaster fast becoming universal. Formulas and machinery protected by U. S. letters patent. Territory rights to manufacture for sale on reasonable terms. Plans and specifications for new mills furnished. Machinery supplied and located at minimum cost. Trade supplied with MASTIC from our mills. If this looks good to you write

The Ohio Wood Fiber Plaster Co.
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Stucco Retarder.

A stucco retarder absolutely uniform in strength. Strongest retarder made. Insures a slow and gradual set. Samples free for tests. Information concerning plaster formulas furnished.

The Ohio Retarder Co.,
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STUCCO RETARDER.

We are the largest manufacturers of retarder in the world. Our goods are both strong and uniform. If you have not already tried them send for sample. Freight prepaid to any point in the United States or Canada. ✂ ✂ ✂

THE BINNS STUCCO RETARDER CO., Uhrichsville, Ohio.

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The Coming Wall Covering

WE ARE THE ORIGINATORS.

After several years of experimental work we have reached **SUCCESS** and our goods are recognized as of the highest quality.

We wish to establish our trade in every important market, and will give local capital and local talent an opportunity to go in with us in the erection and operation of

MIXING PLANTS

Using our **IMPROVED MACHINERY** and **FORMULAS**. The management of the local plant to remain with **LOCAL INTERESTS**. Write us for full information.

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PAPER BAGS



THE MOST CONVENIENT.
SATISFACTORY &
CHEAPEST PACKAGE FOR
**CEMENT,
PLASTER,
HYDRATED LIME**

WE SHALL BE PLEASED TO SEND
SAMPLES AND QUOTE PRICES.

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Manufacturers of WALL PLASTERS Unsanded

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Zenith Cement Plaster.
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Adamant Wall Plaster.
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BRANCH OFFICES: Ft. Dodge, Iowa; New York Life Bldg., Omaha, Neb.; 480 Virginia St., Milwaukee, Wis.; Lumber Exchange, Minneapolis, Minn.; Foot of Tower Ave., West Superior, Wis.; Hammond Bldg., Detroit Mich.; Indianapolis, Indiana; Sandusky, Ohio.

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MANUFACTURERS OF AND WHOLESALE DEALERS IN

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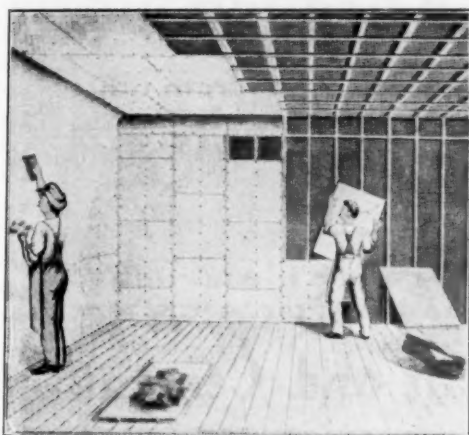
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Sugar Ridge, Ohio.
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Ohio White Finishing Lime,
Ground Lime, Lump Lime,
Fertilizer, Hydrate Lime,
Cement, Plaster,
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Capacity
3500 Barrels
Per Day.

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A material used in the construction of Walls and Ceilings in place of wood and metal lath. Made in Sheets 32" x 36", 1/4" thick. Nailed directly to studding and finished with hard plaster.

Sackett Plaster Board is light, economical and durable. Will not warp, buckle or shrink. Is warmer than lath, consequently saves fuel. Is a fire retardant recognized by fire underwriters.

Walls and Ceilings constructed with these boards cannot fall.

GRAND RAPIDS PLASTER CO.

Manufacturers of Wall Plasters,
Calcined Plasters and other Gypsum Products.

WESTERN SALES AGENT.

GRAND RAPIDS, MICH.

**Big
B**



Lime.



BIG B LIME

ITS STORY OF SUCCESS.

OUR COMPANY:

The Norris and Christian Stone and Lime Company, Marion, Ohio, 20 years of experience.

OUR PLANTS:

Three plants comprising seventeen kilns, with daily capacity of 6000 bushels.

OUR RAILROAD FACILITIES:

Pennsylvania Company; The Big Four System; The Erie System, 3 Divisions; The Hocking Valley; assuring prompt shipments.

OUR LIME:

Cool working, free slaking, suitable for all purposes. Popular for SAND LIME brick. Sold in bulk and in barrels.

OUR STONE DEPARTMENT:

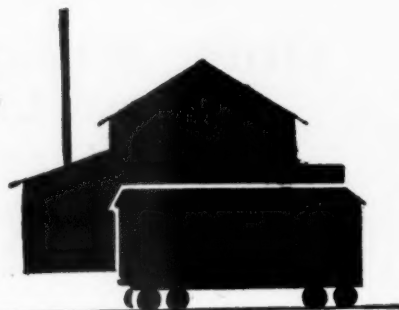
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When You Need a Car of

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Order Through Vs.

Shipments made from mills
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Pennsylvania. ♡ ♡ ♡ ♡ ♡

In straight and mixed
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Lime, Salt and Cement.

We also Manufacture all kinds of

KEGS and BARRELS

FOR

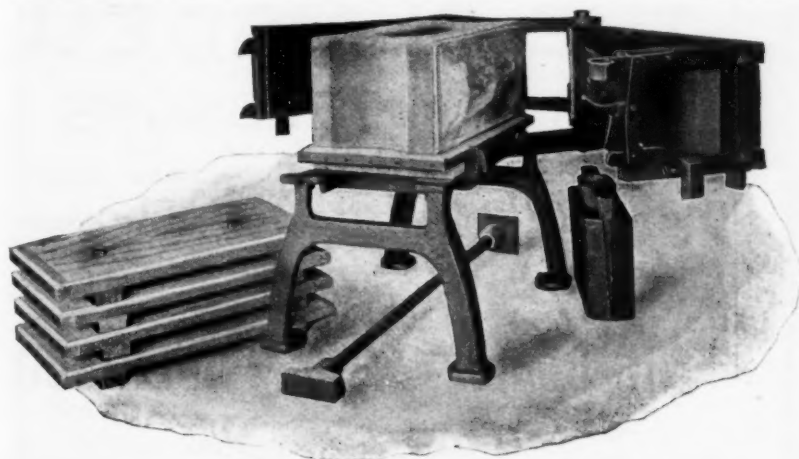
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The **Edwin Bell Co.**

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We Solicit Your Correspondence.

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MILLER & HUNTINGTON,

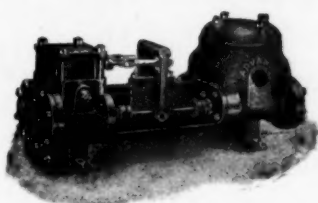
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Snap Cement Building Block Machine

Collapsible core; machine swings clear of block, making it easily removed. Boards having cleats prevent cracking, rock faced or natural stone, easily changed.

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Because you have been doing so for many years

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NEW IDEA. DO YOU WANT TO KNOW WHY?

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ALLEGHENY QUARRIES LANCASTER, OHIO.

Rough, Cut and Sawed Sand Stone.

RAILROAD BRIDGE STONE A SPECIALTY.

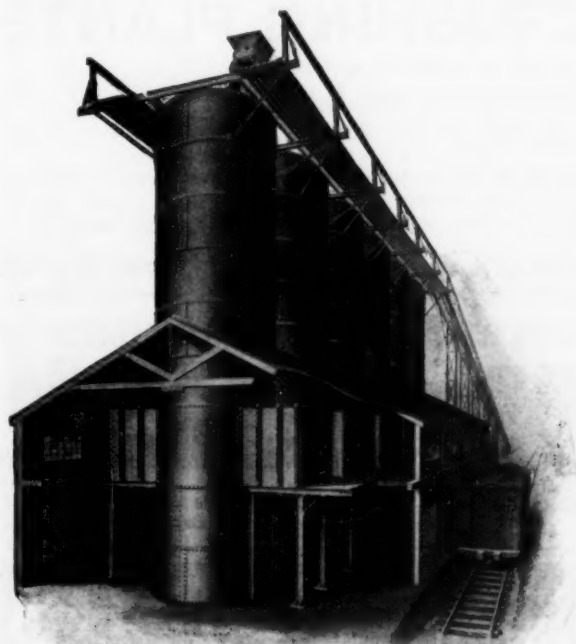
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Crushed Sand Stone for Concrete.

Sand, 98 per cent. Silica, suitable for core work, Iron and Steel work, Cement Block and Mortar. Also Fire Sand.

G. S. FRAMBES, Successor to F. C. NEEB.
ESTIMATES FURNISHED.

Keystone Continuous Burning Lime Kiln



BROOMELL'S PATENT.

Will burn lime rock in the most economical manner with bituminous coal, wood or producer gas as fuel.

No foundation required above the ground level, self-supporting, made from heavy steel plates reinforced with steel angles and posts, lined with special fire bricks for which drawings are furnished.

The only complete, practical, first-class self-contained lime kiln ever made.

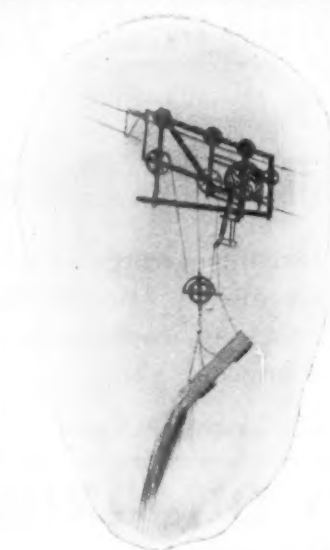
Manufactured by

Broomell, Schmidt & Steacy Co.

YORK, PENNSYLVANIA.

Battery of six kilns showing building, incline and top plat form. This cut was made from a battery of kilns in actual operation. Any number of kilns can be placed in a battery.

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Owners OF... Quarries

Can do away with
Tracks, Cars and Men
to operate them; also
Save Money, Time,
Wages and in Con-
struction by using

The Hooker Elevator Carrier

FOR INCLINE CABLEWAYS.

MANUFACTURED BY

HOOKE BROS., Poultney, Vt., U.S.A.

Who will send description and testimonials to every reader of
Rock Products upon application.

THE BLAISDELL AIR COMPRESSORS



ARE IDEAL FOR QUARRY WORK.
Self-Oiling Dust Proof
Substantial

SEND FOR CATALOGUE.

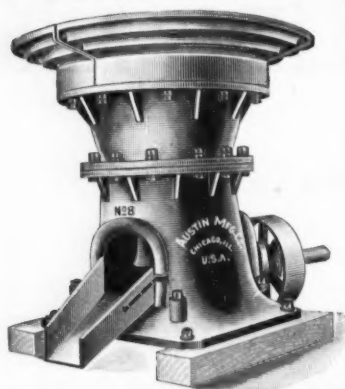
THE BLAISDELL MACHINERY CO.
BRADFORD, PA.

The Pirie Tool Sharpening Machine is now on the Market.

Its capacity is 75 men, but it can be profitably used
where 50 cutters are employed within a radius
of one mile. For full particulars, write or inquire

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NEW YORK OFFICE: PARK ROW BLDG.

ATLANTA OFFICE: PRUDENTIAL BLDG.

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ROCK AND ORE CRUSHING PLANTS

Revolving Screens, Elevators, Dump Cars, Etc.

COMPARED WITH OTHERS THE AUSTIN IS MORE DURABLE

Has greater capacity per horse power, easier adjustments, stronger parts, is of more scientific design, and is the only automatically lubricated
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Discriminating Engineers invariably admit that the **AUSTIN GYRATORY CRUSHERS** embody improvements which overcome the
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about, the book
has a rich, daz-
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mends itself to us
by its rare and
wonderful vivid-
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OR THE PASSING OF THE INCAS.

—BY—

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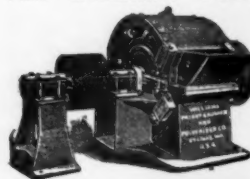
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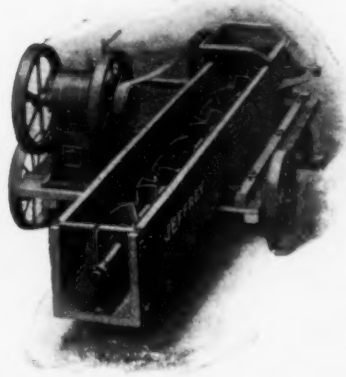
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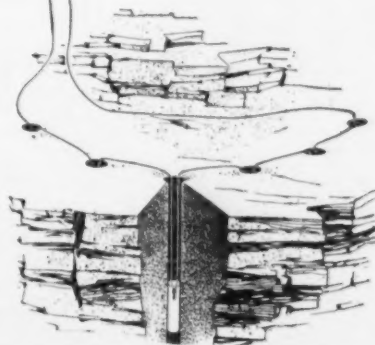


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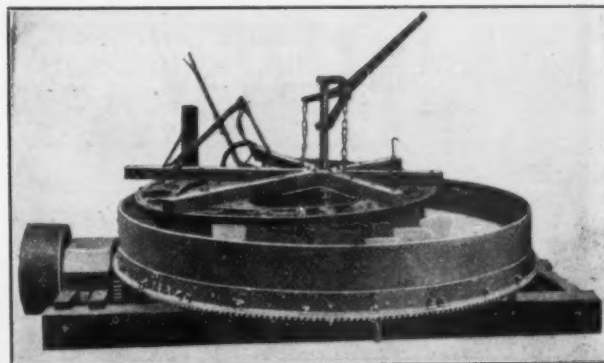
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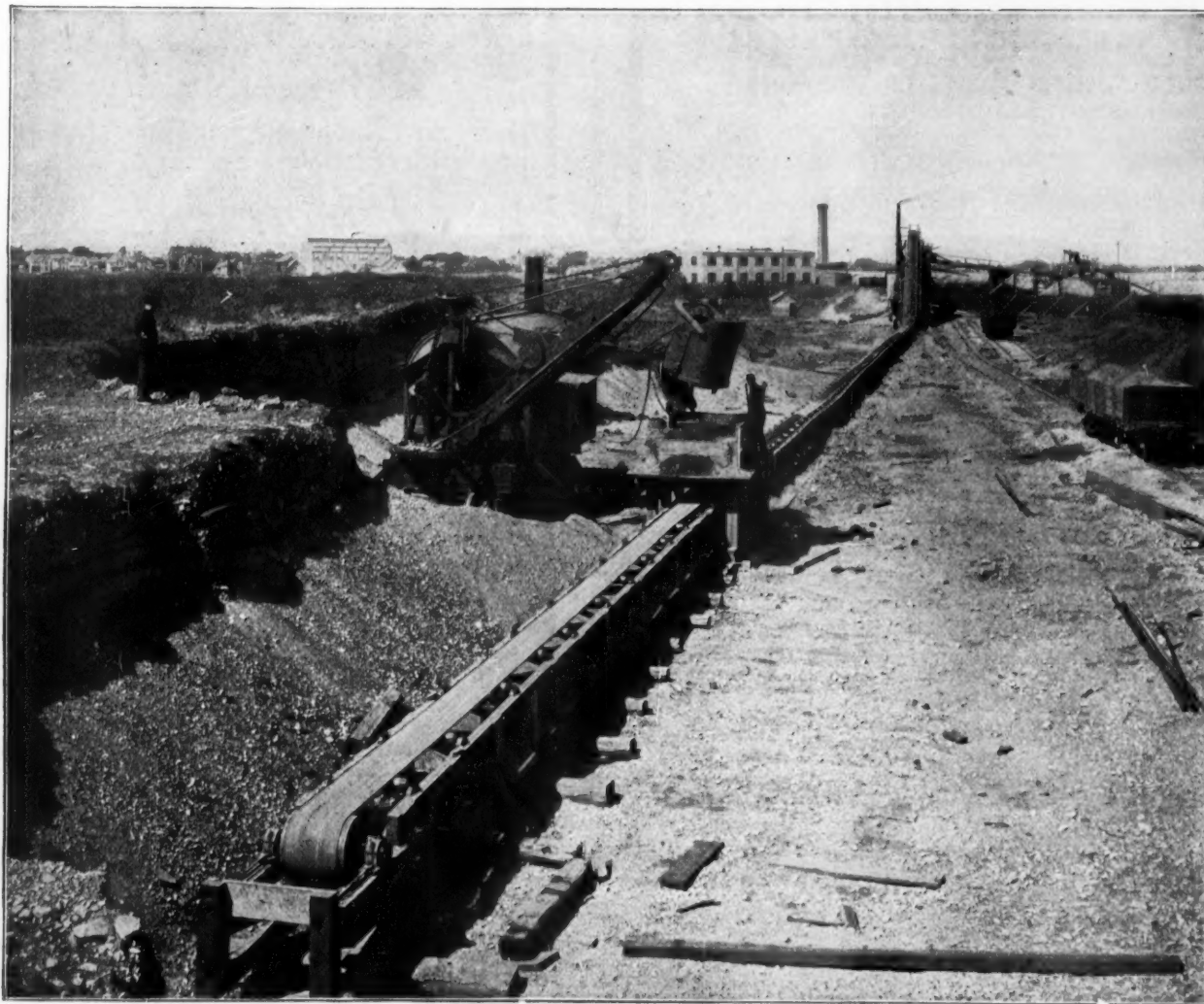
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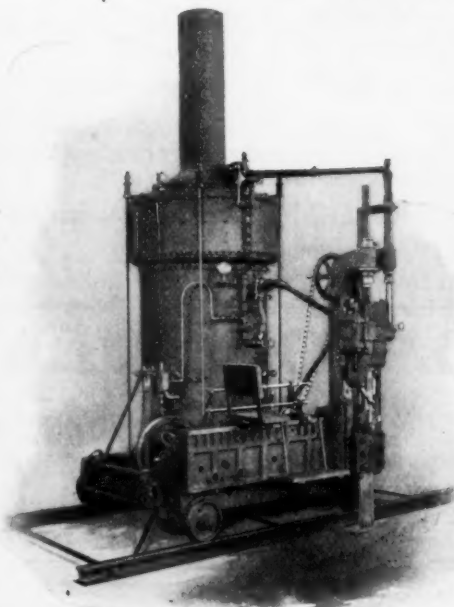
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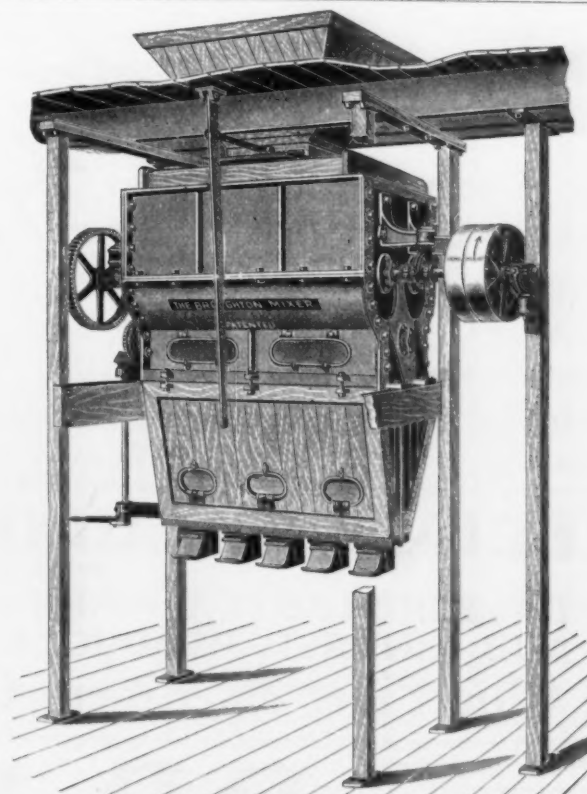


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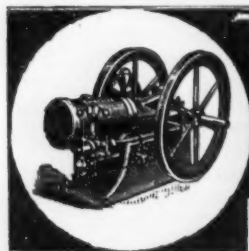
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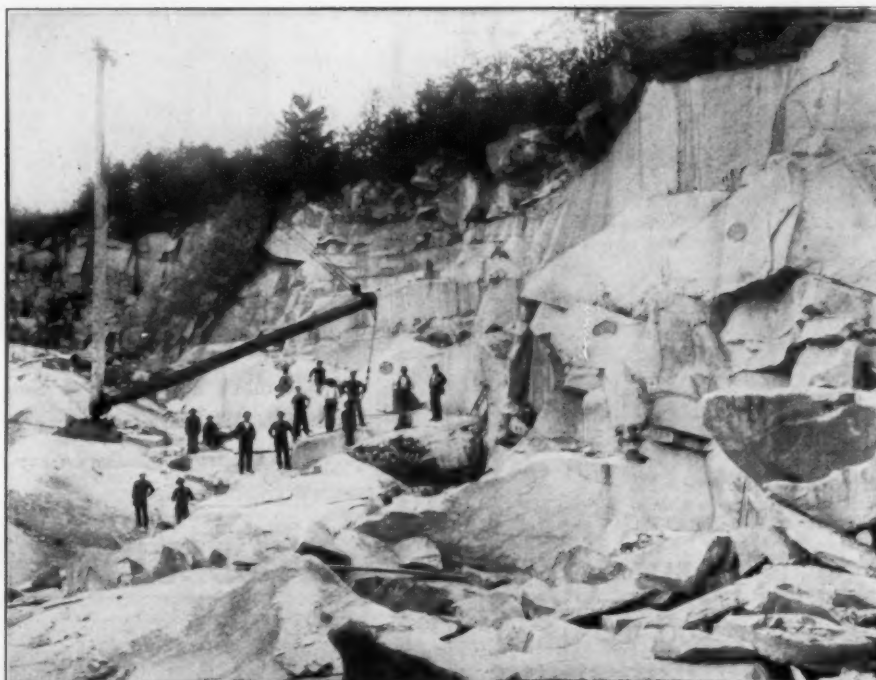
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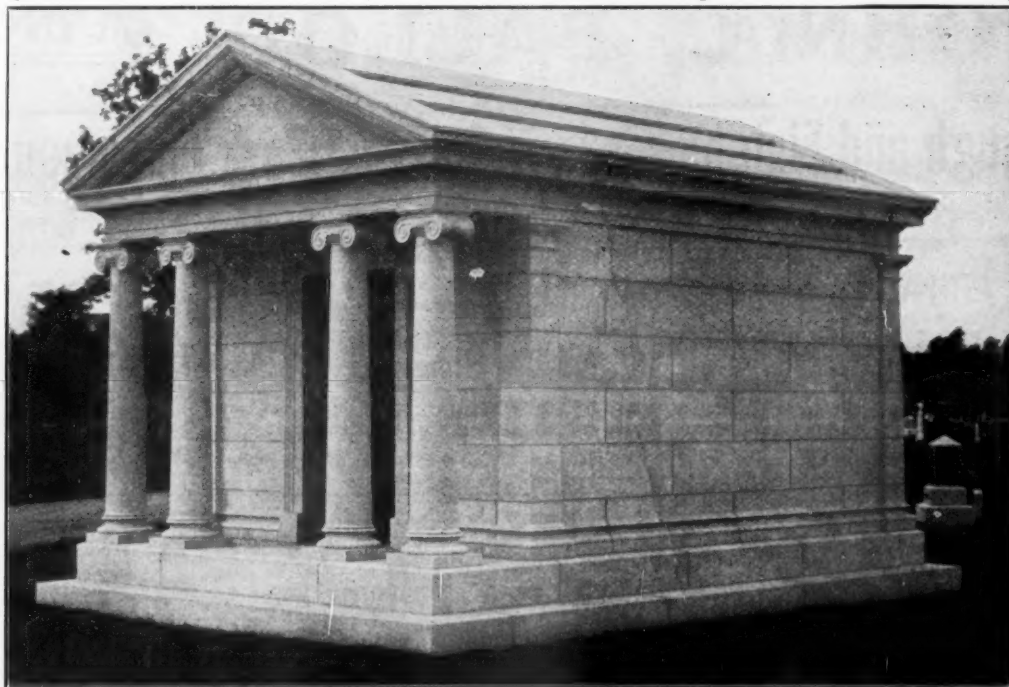
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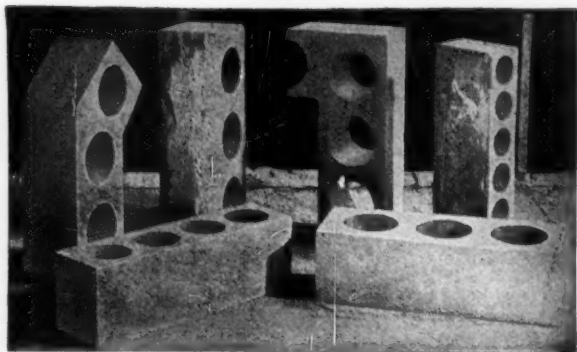
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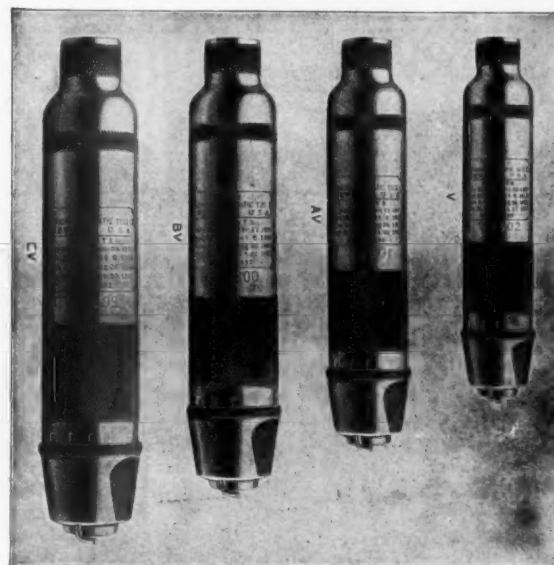
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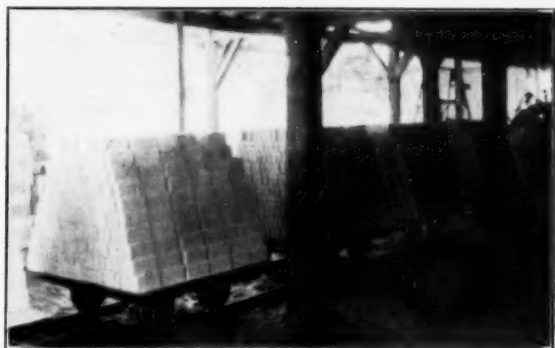
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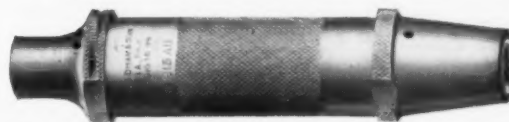
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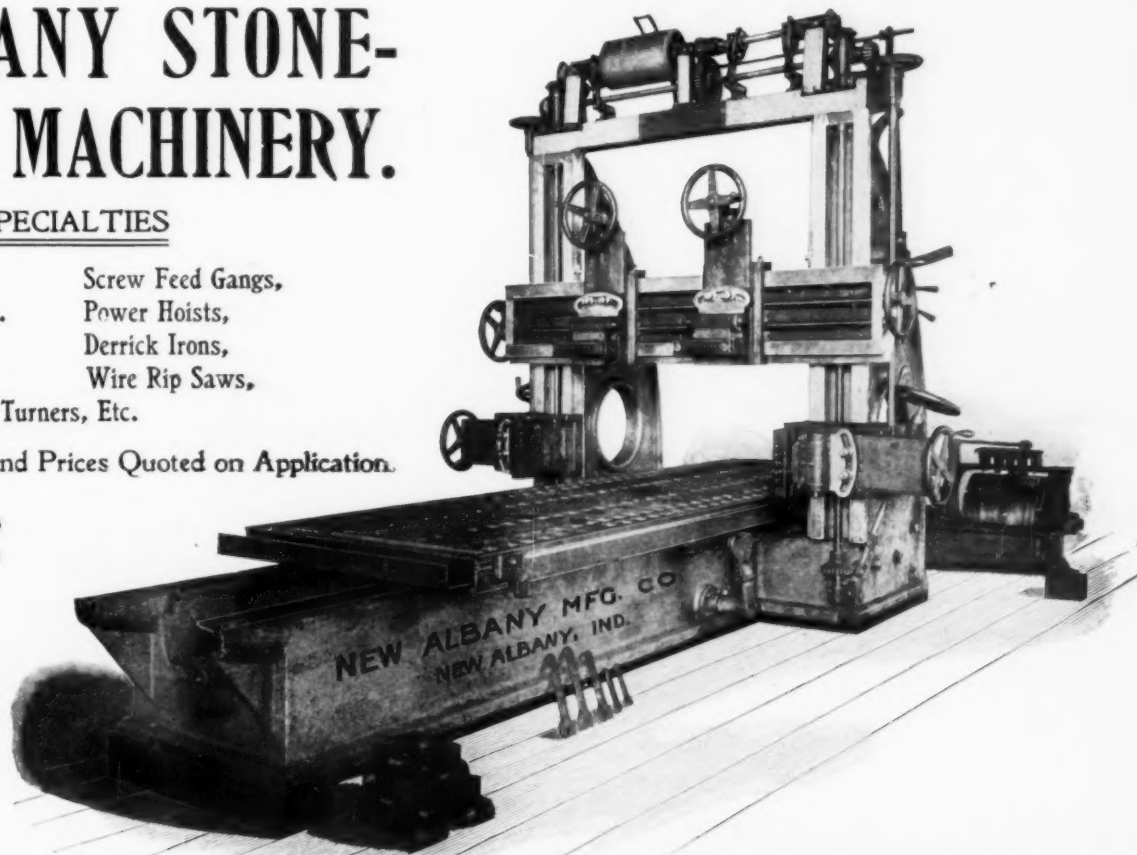
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